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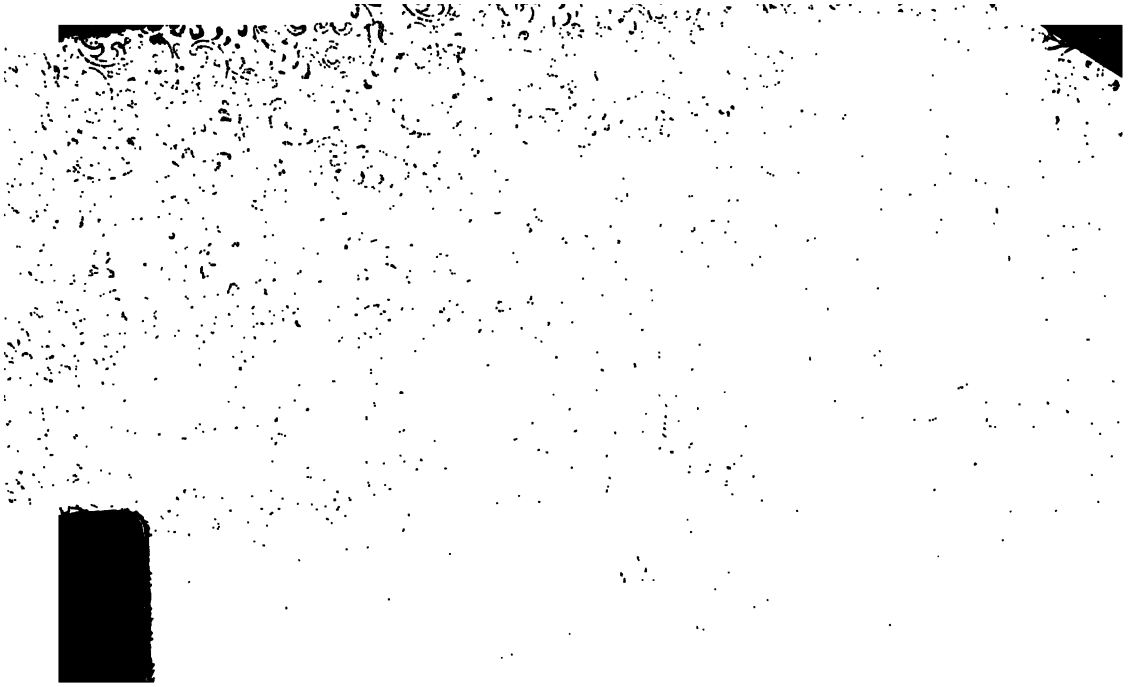

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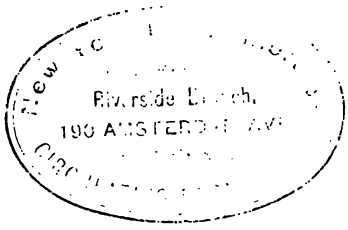

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BY

EDITH CARRINGTON

AUTHOR OF "NATURE'S WONDERS," "AGES AGO," ETC.

WITH PICTURES BY HARRISON WEIR

Riverside Branch,
100 AMSTERDAM

LONDON
GEORGE BELL AND SONS
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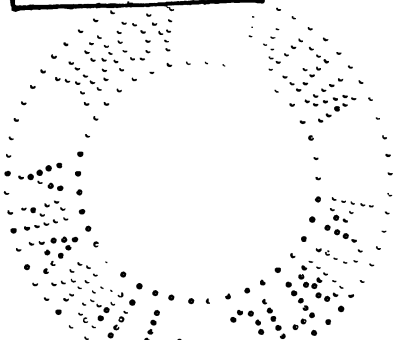

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PREFACE.

To treat animals kindly because they are found to be helpful is not to take the highest ground, as all sensitive creatures, whether useful or not, demand humane treatment from us. But even those who do not extend their humane feelings to all creatures must admit that common gratitude should lead us to treat with consideration those animals without whose help not only our progress, but also our very existence would be impossible. Being helpful to men ought, one might think, to be synonymous with being kindly treated by men, but, unfortunately, a glance around seems to show that it is just those animals which are most helpful that, in their daily contact with man, are subjected to most cruelty. To be useful seems to be the greatest curse that can fall upon an animal.

That the docile and sensitive horse should be subjected to a life of ceaseless toil and made to wince from morning till night under the whip, the spur, the bearing-rein, and the hard word, is no less discreditable to our humanity than that the "holy lark," the "pilgrim of the sky," whom all people rejoice to hear in the spring-time, should be doomed to drag out its existence in a prison eight inches high, or to satisfy the appetite of the gourmand.

It is hoped that this little volume may lead its readers to pause and give more thought to the claims of the lower animals which, almost without exception, are helpful in some way or other to the welfare of man's life upon the earth.

Thanks are due to Mrs. F. H. Suckling, for the use of the verses in this book, which are all taken from "The Humane Educator"; also to the author and publishers of "L'Esprit de nos bêtes" for the anecdotes of dogs.

E. B.

1913 JAN Univ. Dept.

CONTENTS.

	PAGE
1. The Horse	1
6. The Rook	18
9. The Bones of Birds	28
10. Be Good to Your Horse	31
11. The Lady-Bird	32
13. Oxen Wild and Tame	38
17. The Ass	50
18. The Camel	53
19. Over the Snow	56
20. Sea Gulls	59
22. Beaks of Birds	64
23. Birds' Claws	69
24. Rover in Church	73
25. The Lark	75
28. The Swallow	84
30. Frightened Birds	90
31. Robin Redbreast	91
33. How do Birds Fly?	97
34. Feathers	1
35. The Kitten	1
36. The Hedgehog	1
38. The Owl	1
40. Dogs	1
43. Chained in the Yard	1
44. The Cat Tribe	1
48. The Wasp	1
49. An Insect Eater	1
50. Finches	1
52. Catching the Colt	1
53. Jennie Wren	1
55. The Toad	1
57. The Earthworm	1
58. What is Cruelty?	1
59. What is Kindness?	1
60. The Unexpected Doctor	1

MAN'S HELPERS.

1. THE HORSE.

1. Horses have been for so many ages the friends and servants of men, that it seems difficult to think of them as living a free life at all. Yet there are several countries, such as Tartary and North America, where horses run wild like deer.

2. The wild horse of Tartary is red, with a black stripe down his back. It is not so handsome an animal as the American wild horse, or mustang. But in whatever place wild horses live, their habits are much the same.

3. They always live together in great herds, each troop being under the command of a leader. With their general at their head the troops of wild horses gallop over the plains or feed where they like. He manages to give his orders to the rest, we cannot tell how; but his commands are never disputed.

4. The enemies of the wild horse are the wolf, the puma, and the jaguar. But so long as they

keep together they need not fear. The wild horse runs away so fleetly that he leaves his foe behind. If he cannot get off, he will fight with his teeth and hoofs, and, with the help of the rest, often gains a victory.

5. It must be a very sad change for these happy horses when they are caught and made to do hard work, instead of scouring over the country as they please. The Tartars catch wild horses by means of a hawk, which is taught to settle on the head of the strongest and best animal in the herd.

6. The bird flutters its wings in the horse's face. The poor animal is half blinded, and before he can see which way to go the man comes up and catches him. The milk of horses is used by the Tartars as that of cows is by us. The little foals are brought up with the children, who are allowed to ride on their backs.

7. The mustang is generally caught with a lasso, or long rope with a running-noose at the end. This is thrown skilfully over the head of the wild horse at a distance of thirty feet or more. When first caught, the mustang is half crazy from terror.

8. The hunter must show great care and patience before he can tame him. Holding the end of the rope, the man manages to work his way *near to the* wild horse till at last he touches him.

9. Then, catching hold of the creature's ızzle, he blows strongly into the nostrils of the

CATCHING THE WILD HORSE.

ld horse. For some strange reason, which nody *can understand*, the horse instantly becomes

quiet after this, and in a few hours you would hardly know him from a trained animal.

10. Now, the history of the wild horse is very interesting. And it is important to know it, because it tells us a great deal about the nature of that splendid helpmate of ours, the tame horse, without whose help we could hardly manage to get on.

11. The domestic horse has not lost the nature which his race had when wild. If we think of the character, the wants, and the habits of a wild horse it will help us a great deal in understanding our good and noble servant, the tame horse.

12. We must remember that the race of wild horses is a very timid one, like that of deer. So we must expect the tame horse to be a timid animal too. So he is; there is no creature in the world more easily put into a panic.

13. A rough word makes his heart beat fast and loudly; when he is beaten he becomes so terrified that he almost loses his wits. We can see how easily he is alarmed, by his habit of running away when the least thing happens that is new or strange to him.

14. He gets into such a fright that he does not know what he is doing. Fancying himself a wild horse again, he scampers off, not knowing where to go. He forgets that a cart or carriage is fastened to him.

15. He thinks that he can get away over the desert plains and be safe. This shows that if we wish to make the horse useful and happy we must never frighten him. A gentle word, a pat, or a little treat, is the best way to keep him in order.

2. THE HORSE IN USE.

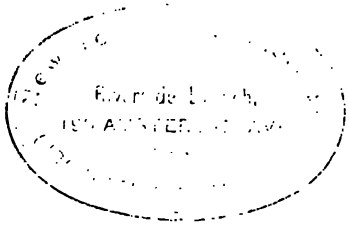
1. Some horses have a way of shying. That is, they will give a start, and then bolt away sideways, or rush headlong for some distance. This is because the horse, when wild, was always in dread of snakes and wild beasts.

2. You may have noticed what long legs young horses have when first they are born. This is because horses are timid animals, and want to run away from their enemies. It is necessary that when the troops of wild horses are making their escape the little foals should be able to keep up with the rest.

3. So the young horse is not born with short legs like a tiny boy or girl, but with legs as long as those of his father and mother. Also, the young horse cannot go a good while without milk as some other little animals can.

4. He is obliged to run often to his mother; his *stomach is small*, and so he gets thirsty often.

MAN'S HELPERS



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except on the side where she could see it well. She must have remembered for a whole year the loss of her last baby.

6. She made up her mind that no such sad misfortune should happen to the next. She would never lie down without first looking carefully about to see where the foal was, lest she should crush it.

7. The reason that the horse is such an obedient animal is because when wild the creatures of his race always obey their leader so well. The horse's nature was trained to obey a captain or chief before man had anything to do with him.

8. And now he looks on his human master as a sort of chieftain-horse, with two legs instead of four. Herds of wild horses obey the strongest and cleverest of their number. So directly the horse has found out that a man is stronger and more clever than he is the creature will no longer struggle against him.

9. He will obey, love, and serve his new human leader till he dies. Sometimes I dare say he wonders why his human master shouts at him, and gives him blows. Wild horses do not do these things to their followers.

10. Mr. Rarey, the famous horse-tamer, found this out. There was no horse, no matter how *difficult to manage*, which he could not tame and

subdue. He never used a whip; he gave no blows, hard words, nor kicks; he used no cruelty towards the horses which he tamed.

11. He only strapped the horse up so that he could not move; and then the animal learnt that it was helpless, while the man who had bound him was strong. And he found too that the man who was his master did him no harm, but only stroked him and spoke softly and kindly.

12. From that time each horse that Mr. Rarey treated in this way became gentle and docile as a lamb. When horses bite or kick it is because they have been ill-used, puzzled, and made afraid of men when they were colts, or afterwards.

4. A PIGMY WILD HORSE.

1. There is a kind of little horse called the Shetland pony, which runs almost wild in some parts of the British Isles. He is a strong, shaggy little fellow, and is very shrewd and knowing, as well as willing. Often he is not much larger than a very big dog.

2. A little Shetland pony was once caught, that he might carry a lad to and from his school. *The little horse* had never been shod, as he had

always run free on the grassy moors. As he was now to trot up and down a hard road, it became needful to fit him with two pairs of new shoes.

3. I dare say that at first the pony did not like the feeling of the iron under his feet. But he had sense enough to find out the use of his shoes before long. One day, as the blacksmith was at work, he saw the pony, without even a halter on him, walking up to the door.

4. Thinking that he had strayed from the paddock, the blacksmith drove him back. But as soon as he was busy with his hammer again, the head of the little rough pony peeped in at him again. As fast as he was sent off, the small hairy face and bright eyes showed themselves again.

5. At last the blacksmith thought that as the pony would not go home, he might as well take a look at his shoes. For, as the hoof of a horse grows as your nails do, his shoes want changing or looking at, about once in every three weeks or so.

6. He soon found that the pony had lost one shoe, and he had come to the blacksmith's all by himself to get a new one put on! Having made a shoe, the man nailed it on, and then watched to see what the pony would do. For a moment he looked at the blacksmith as if asking whether *all was done.*

7. Then he gave a neigh, like a little laugh, as if he were very much pleased, and after

SHETLAND PONIES.

tossing his mane, started off for home at a brisk trot. The owner of the pony, who had meant

to bring him to the forge next morning, was much surprised that night at finding him shod.

8. It was not till some time after that he heard from the blacksmith all about it. If people would watch the way in which horses gallop when free, it would teach them how foolish and cruel it is to place bad and ill-fitting harness on their tame horses, while they are working.

9. Can you believe that any people would be so stupid as to tie a horse's head back, when he is pulling a heavy load, or strap up his neck tightly at any time? Of course he cannot pull well in that way, any more than you could pull a wheelbarrow up a hill with your head tied back.

10. Nor would you like to stand long in such a way. Yet drivers of horses often put on the necks of their poor beasts a tight strap, called the "bearing-rein," which pulls the horse's head back.

11. It gives him great pain, makes his mouth sore, spoils his temper, and makes him less able to work. It has been rightly named the "cruelty rein." I hope that the boys now growing up will be too wise to use it when they have the care of horses by-and-by.

12. When a horse is pulling a load, he wants to lay his shoulders against the collar, and to push his head out far in front of him. Half of his strength is wasted if he cannot do this.

13. Great care ought to be taken to see that all harness put on a horse should fit him well. How should we like having to walk about in shoes that pinched our toes, or in clothes that cut us under the arm ?

14. He is faithful and does his best. And he cannot speak to tell us where the harness is hurting him; he has to bear it till a sore comes and somebody sees it. This should make us very careful to watch him and see that nothing is wrong.

5. HOW MUCH DOES A HORSE KNOW?

1. There was once a Professor of horse-taming who lived in America. His name was Bartholomew. One day a stranger came to see him, and asked, "How much does a horse know?" "About as much as an ordinary man," was the answer.

2. "If you do not believe it, then spare me half an hour of your time, and I will show that what I say is true." The stranger said in reply that he would gladly give the time, but that he thought it was easy enough to teach an animal a few tricks. That did not show much sense on the part of the creature.

3. The Professor smiled in a pleasant way, and said, "Well, I will not argue with you; wait and see." Then he called aloud in a cheerful voice, "Nelly!" A slight scuffling noise was heard in some stalls at one side of the stage where the Professor showed his horses to the public.

4. Then a beautiful little bay mare came trotting up to where the two men were standing. "Bow to the gentleman," said her master. And she nodded her pretty head. "Now shake hands," said he, and the mare lifted her left forefoot.

5. "Oh, Nelly, is that the right foot?" said the Professor gently.

It almost seemed as if a look of shame at her mistake passed over the honest face of the little mare as she made haste to give the proper foot instead.

6. "Nellie is like some children," said her master, patting her kindly, "she cannot always tell her right hand from her left. Now count one, two, three," he added. And tap, tap, tap, went the iron-shod hoof upon the floor. "Next, fetch the gentleman a chair," said the Professor.

7. Nellie trotted over to the opposite side of the stage, and in a few moments came back *bringing* a chair in her teeth. "Sit down and

wait till I bring you the rest of my scholars," said the Professor to his visitor, and he walked quickly away.

8. Nellie started off to follow him like a dog, but he said softly, without turning his head, just as if he had been speaking to a child, "Why don't you stay with the gentleman?" Though Nellie wished to be with her dear master, she obeyed like a good little girl, and went back to the stranger's side.

9. He did not know how to amuse her till the Professor came back, but after a while he thought of a paper of sweets which he had in his pocket. Taking them out, he treated the little lady-horse to some, and they soon managed to finish the good things between them.

10. A whole troop of horses then came on to the stage and did all sorts of wonderful things. They seemed to attend to what was said to them better than most classes of boys and girls could have done. They danced, they marched, they knelt down when they were told, and jumped up when they were bidden.

11. One beautiful Arab horse showed how he had learnt to bow to his master in Arabia, which was by kneeling down and touching the floor with his forehead, a very difficult thing for a horse to do. All the time that their teacher was making these horses perform, his voice was so

low and gentle, that it did not sound like a command when he spoke.

12. "Now how much does a horse know?" he asked of the other man. "A great deal more than many men," was the reply, "for he knows how to do his duty cheerfully to the best of his power."

6. THE ROOK.

1. The cradle of the young rook is a great bundle of twigs carefully woven together in some lofty tree-top. It is a funny and a pretty sight to see the old rook fetching sticks for his nest, while his mate either helps him to gather them, or sits waiting for him to bring them in his bill.

2. The rook never goes very far away from the place where he means to build, when he is getting his twigs, yet he is not allowed by the the other rooks, who are building on the trees round him, to steal bits from their trees.

3. Rooks always live in a crowd; sometimes many hundreds of nests are made in a single clump of trees. And these strange birds have made laws for themselves which all keep who live in the same rookery.

4. These rules help them to dwell in peace,

just as our laws make it possible for us to live in towns without quarrelling with our neigh-

BUILDING THEIR NEST.

bours. It seems as if one of the rules of a rookery ordered that twigs must not be broken

off by one rook from the branches in which another rook has built.

5. A second of these wise rules is that no rook must be a thief. If a pair of these birds is caught by the rest taking twigs from some one else's half-built nest, the guilty couple are set upon by the rest, their nest is torn to pieces, and they are punished in order to teach them better ways.

6. The rook's nest is very strongly made; if it were not, the wind would soon blow it all away. When it is ready the mother rook lays her eggs and begins to sit. All through the rain and cold there she stays, hardly moving, except perhaps twice or thrice a day to stretch her tired limbs.

7. While she is sitting the male rook is good and kind to his wife; he takes great care of her, and brings her things to eat which she thinks very nice. These tit-bits are worms, grubs, and any insects which Mr. Rook can pick up on his travels.

8. As soon as the young rooks break their shells there is a fine fuss in the rookery. "Early to bed and early to rise," is a capital motto. But if we were to go to bed and get up when the hard-working rooks do, we should have four hours sleep only in summer time; for they go *to bed at ten* and get up at two.

9. They are obliged to do this in order to feed their young ones properly; for the rook cannot just go to a shop and buy what he wants for his children. He is forced to fly far and wide over the fields to dig up their food out of the ground.

10. He must meet with many dangers—thoughtless boys who throw stones, cruel men with guns, and many other risks. If he should be killed, what will become of his poor mate and helpless little rooks?

11. But in winter, when they have nobody but themselves to think of, and when the sun sets early, rooks go to bed at four in the afternoon and do not rise till eight o'clock the next morning.

12. All day long the kind-hearted and painstaking rooks go to and fro from the fields to their nests, so long as there are babies in it, popping insects and worms into the great yawning mouths, which are always ready to be filled.

7. THE ROOK IN THE FIELDS.

1. Did you ever notice the beak of a rook? It is shaped like one end of a pickaxe. And round it, at the thick end, on the forehead and

throat of the bird, there is a patch of stout, leathery skin.

2. The bill of the rook is a tool made for digging with, and the reason that no feathers grow at the base of his beak is plain. They would be in his way while he was digging for grubs in the earth, would get rubbed off, and would cause him pain.

3. Some of these grubs are most harmful to the roots of corn, grass, turnips, and other crops. There is one sort of grub called the wireworm and another named the cock-chafer grub. These creatures live underground for years feeding on the roots of plants.

4. By digging these out and feeding himself and his family upon them, the rook is of great service to the farmer. Sometimes people have been so foolish as to fancy that rooks did mischief in the fields where they feed.

5. Men have seen them pulling up a tuft of grass, perhaps, or a young turnip, or a stalk of green wheat. And instead of finding out what the birds were doing it for, they have shot them in a hurry.

6. But if care had been taken to look at the plant rooted up by the rook, it would have been found that the bird pulled it out of the ground in order to get at the grub which was eating its roots. The plant would have died in any case.

7. And the grub, if it had been allowed to live, would have gone on killing more plants.

HARD AT WORK.

Besides this, the grub too would have changed into a winged beetle, and laid many hundreds

of eggs. From these eggs new grubs would have crept out to destroy dozens of roots.

8. So that, in killing the grub, a rook prevents the loss of many plants, even if he should root up one. In places where rooks have been killed, insects like the cockchafer have become so plentiful as to be quite a terrible plague.

9. They have eaten not only all the crops for many miles around, but also the leaves from the trees. Men can do nothing to check these plagues of insects when the birds are all gone.

10. The farmer cannot find the crawling creatures underground, and he has no strong, sharp beak with which to dig them out. He is very stupid when he shoots a single rook, for this bird can do what he cannot.

11. In frosty weather, the rooks look very miserable. And at that time, when there are no grubs to be found, they will sometimes peck at potatoes, grain, or anything they can find.

12. We must not grudge them some food to save their lives when they are in distress, since without their help all the rest of the year the farmer could hardly grow his crops at all.

8. THE ROOK AND HIS FRIENDS.

1. When a party of rooks wish to feed together in safety, they take it in turns for one to keep guard while the rest eat. One wise old rook perches himself on a wall, gate-post, or stump of a tree, and keeps a look out.

2. If he sees a man with a gun coming, or any other danger drawing near, he gives a loud "caw!" to warn all the flock. The strange part of it is, that, in some way which we do not know, this sentinel rook manages to tell the others which way they ought to fly.

3. They never make a mistake, but always hurry off to the opposite direction to that in which the enemy is coming; although they cannot see him. Rooks seem to talk to one another when they are in their rookeries.

4. If a troop of these birds fly back to the trees in which the rest have already settled for the night, a great cawing and noise begins. The new comers appear to be telling the news to those who are already going to roost.

5. These sensible birds know the look of a gun very well. They have learnt that it is the gun which hurts them, not the person who carries it. They will not allow a man bearing a

gun to come near them. But if a woman or a man without a gun passes through the field where they are feeding, they hardly take any notice.

6. When farmers are so mistaken and silly as to scare rooks away from the pastures where they are doing so much good, they sometimes shoot one rook and hang up his dead body as a warning to the rest. Then his friends, the other rooks, will visit their dead comrade once or twice, and walk or fly sadly round his body.

7. They wish to try whether they can rescue or help him; but when they find that he does not move or answer them, nor try to follow, they think it hopeless and go away. After this the rooks will not go into that field any more.

8. As a rook may eat one pound weight of food in a day, and that food consists of grubs and creeping things which harm his crops, you will see what a blunder the farmer makes in killing one of these birds and driving away the rest.

9. The rook is able to feel with the tip of his beak for the grub which he wishes to catch, just as a duck can feel with her bill for the water insects which she catches in the mud, without seeing them. Both these birds have *nerves in their* beaks, which make them able to

grope for their food, and find it in places where it is out of sight.

THE SENTINEL.

10. When one rook from among a flock has been wounded, the others, instead of being

frightened away by the noise, will often come up to the place where the bird lies. They will not leave him to his fate without an effort to save him, although their own lives are in danger.

11. A man once picked up a rook which he had shot, but not killed. As he held the poor fluttering creature in his hand, another rook came wheeling round his head. The unhurt bird made a sudden dart through the air so near to the hand which held the half-dead rook, that he almost touched it.

12. This brave rook wished to make one last effort to bring help or comfort to his mate in her pain. Any man or boy who can find pleasure or sport in tormenting and killing birds so useful, clever, and affectionate, must have a bad heart.

9. THE BONES OF BIRDS.

1. One thing which makes a bird fit for its life in the air is the wonderful way in which its bones are made. Animals which walk on the ground have solid and heavy bones; the middle part is filled up with marrow.

2. But the bones of a bird are hollow, and are *made of a very* light substance. And not only

are these bones empty of everything besides air, but the bird is able to fill them with air from his lungs which has been warmed inside him.

3. Just as a sponge may be filled with water, the body of a bird may be filled with warm air. This is, of course, a help to him when he wishes to rise up, because warm air is lighter than cold. A balloon goes up because the gas inside it is lighter than the air outside.

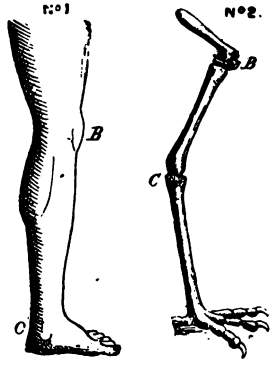
4. The power which the bird has, of filling his bones with air, makes him able to breathe in places where men could not—on the tops of mountains and high in the sky.

5. When he likes, a bird can pump air into nearly all parts of his body, so he carries a store of it with him to breathe. His blood is made pure and wholesome and his little heart is made glad by all this sweet fresh air. A bird when he is flying seems so gay and merry that he hardly knows what to do.

6. He was made for moving through vast empty spaces, and it is most cruel to cage such a creature. He cannot get the floods of free air that he wants unless he is allowed to use his wings as he likes. Nothing but perfect liberty in the open air can keep a bird healthy and happy.

7. The breast-bone of a bird is shaped very much like the bottom of a boat, resting on a

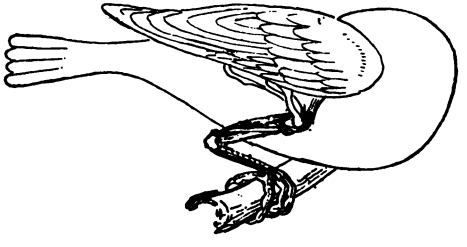
deep keel. The wings are very long in those birds which fly far and keep for hours on the wing, but they are very short in birds which keep much on the ground, like the ostrich.



THE LEG JOINT.

8. In his leg the bird has three joints, as a man has. The knee joint (*B* in the figure) is near the body. The joint *C*, which bends backwards unlike our knees, corresponds with a man's heel.

9. Down the leg runs a strong sinew, which draws the claws together whenever the leg is bent. If you look at the foot



THE LEG SINEW.

of a hen when she is walking, you will see that as soon as she lifts it from the ground it closes *of itself.*

10. When a little bird wishes to sleep, he has only to find the nearest branch that suits him; his claws will grasp it tightly. By bending his leg, and placing his head over his back, he makes the muscle in his leg hold the twig tight, and throws his slight weight evenly.

11. He cannot fall, for the more he presses on his leg and makes it bend, the more tightly it clasps the twig. When one leg is tired he changes it for the other without waking up.

12. The rough bark of the branch helps him to take a firm grip of it. In cages poor birds nearly always get sore feet, because the slippery, smooth perches hurt their claws.

10. BE GOOD TO YOUR HORSE.

1. No one deserves to have a horse
   Who takes delight to beat him;
   The wise will choose a better course,
   And very kindly treat him.

2. If ever it should be my lot
   To have, for use or pleasure,
   One that could safely walk or trot,
   That horse would be my treasure.

3. He soon would learn my voice to know,
And I would gladly lead him;
And he should to the stable go,
I'd keep him clean and feed him.

4. I'd teach my horse a steady pace,
Because, if he should stumble
Upon a rough or stony place,
We both might have a tumble.

5. Should he grow aged, I would still
My poor old servant cherish;
I could not see him weak or ill,
And leave my horse to perish.

6. For should he get too weak to be
My servant any longer,
I'd sent him out to grass quite free,
And get another, stronger.

ANON. ("Humane Educator.")

11. WHO EATS THE BLIGHT?

1. The pretty little scarlet beetle which we call "ladybird," or "ladycow," is born from a very tiny egg. The mother never sees her own children, as she usually dies before they are born, *but she takes* great care to put her eggs in a

place where the young ones will find plenty to eat.

2. Did you ever see a quantity of small green insects, some with wings and some without, crowding on the stem or bud of a plant? They are blights, and they spoil the leaves of the plants. Some are black like grains of soot, others are lilac, grey, or whitish.

3. The winged blights have power to travel, and if one of them settles on a stem the plant to which it belongs will soon be covered thickly

APHIDES, OR PLANT-LICE, ABOUT TEN TIMES AS LARGE AS LIFE.

with young blights. For twenty or more are born each day from one parent.

4. The ladybird places her eggs on the plant where she finds blights, right in the middle of them. If she finds many blights, she lays a great number of eggs, but where she sees only a few, she does not lay so many eggs.

5. But she does not put too many eggs, for fear her young ones should not have enough food. The eggs look like wee yellowish beads. When the young ladybirds are hatched by the sun, they are just like very tiny crocodiles.

6. Their long, thin bodies are sprinkled with black, yellow, and red dots. They feel very hungry the moment they are born, and set to work at gobbling up the blights as fast as they can. The blights do not seem to mind being eaten. They stand still to be swallowed, just as your piece of bread and cheese does.

7. Each young ladybird will eat one blight in a minute, so that you see he can manage just sixty in one hour. After a time the young ladybird, after changing his skin once or twice, finds himself a smart little red beetle, with beautiful gauzy wings folded beneath the scales on his back.

8. He uses his wings to fly in the sunshine, but he still feeds on blight, and does much good wherever he goes. When this pretty little insect comes into our houses he is always welcome.

9. He is a good servant and friend to us. The ladybird cannot bear much cold, and will be glad to hide in a greenhouse, or creep into some crack or chink in a warm room when the weather is chilly.

10. He will sometimes go to sleep in the corner of a window-pane, and wake up again when he feels the sunshine of spring. But if he has no refuge he does not often live through the winter. It is very likely that robin-redbreast might spy *him and* snap him up for dinner.

12. FLY AWAY HOME.

1. A clever man once counted up how many young ones a blight might have, and how far and fast its family would spread out, if no birds, ladybirds, or other creatures killed them.

2. He found that one blight and her family, with their young, would be enough to choke up the whole world, land, air, and water alike, in three hundred days. So you see we must be thankful for birds and insects which eat blights.

3. The hop plants which are grown in Kent are often covered with blights. And then how glad the hop grower is, to see flocks of ladybirds coming to his gardens! He knows that they will soon clear the hop plants from the blights which are spoiling them, and save him much money.

4. Sometimes the ladybirds come in such large numbers that they look like a great cloud of smoke up in the sky. One year a great mass of them was seen passing over a London square on its way to the hop-gardens.

5. At another time the sea coast near Brighton was covered with ladybirds. The shore looked as if a red carpet had been spread upon it.

Every one wondered where the little flying beetles came from, by millions, and how they could know that they were wanted in the hop-grounds to eat blights.

6. One lady, whose house was between the coast and the hop-gardens, saw a swarm of lady-birds in the air, and she said that it looked something like a thick snowstorm coming on. By-and-by many of them rattled against her windows like hail.

7. When a ladybird creeps on your hand, you may notice a strong oily smell which comes from its body. Watch the pretty little fellow, and you will see how fast he moves his six slender legs. He will not unfold his wings till he gets to the right place for flying.

8. He does not like to rise into the air from a flat place. He keeps running about till you lift your finger for him to climb. When he gets to the top he raises the two halves of his scarlet coat, like two shells, shakes out his shining wings, and off he goes!

9. There are twenty or thirty kinds of lady-birds in England, but the most common of them is called the two-spot lady-bird. He does not always keep to the same pattern, for often he has more than a couple of small black blots on his back.

10. A ladybird will make a pretty pet through

THE LADYBIRD.

the winter, if he is placed in a warm room upon a favourite plant. But as soon as sunny days come

again, he will want to go and play with his small friends out of doors. Then we must open the window and tell him to "fly away home."

13. OXEN WILD AND TAME.

1. The ox has been the faithful servant of man for so many ages, that he does not look at all as if he could have anything to with a race of wild animals. And yet there was a time, when herds of wild oxen roamed as they pleased over the grassy plains.

2. From these wild oxen our domestic or tame herds have sprung. In some parts of the world there are still to be found herds of wild animals belonging to the ox tribe. They are very different in their shape, colour, and habits from the docile beasts who live in our farmyards.

3. Till a few years ago, the bison was common in America; the buffalo still wanders through the wilder parts of Italy and Greece, North Africa, and India, while even in Scotland and England, small troops of wild cattle are kept in one or two parks.

4. There are other kinds of half-wild oxen scattered over different parts of the globe. *When very young* these cattle are driven by

men on horseback into a yard, where they are branded with the name of their owners, and then they are let loose again.

CATTLE DRIVING IN AMERICA.

5. In Africa and in Asia there is a kind of bison which is trained to work for men. These creatures are well treated, and soon become as

easy to manage as horses. The voice of their master is quite enough for them; they do what he tells them without being beaten.

6. The more kindly the ox is used, the better he behaves, and the more work he will do. The black men of Africa train bisons to guard their flocks, and to drive away beasts of prey from the sheep. The bisons know every man, woman, and child in the village to which they belong, as a dog does.

7. They will allow any of the persons they know to come near and pat them. But if a stranger were to approach one of these bisons he would be in danger of his life. The master of the tame bison takes charge of him, combs his hair, feeds him well, and treats him almost like a child.

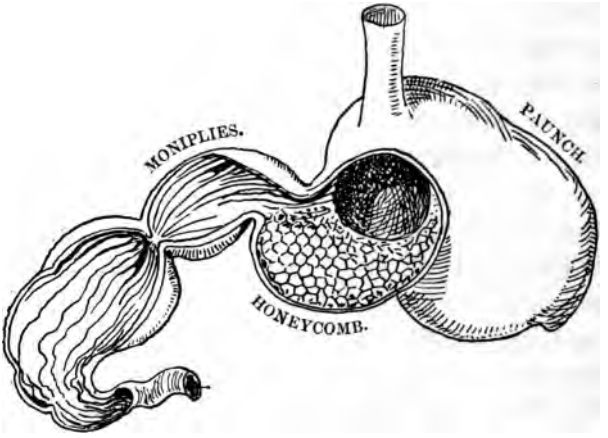
8. This is why the creature becomes more sensible than our oxen, who are left alone in the fields and are not taken much notice of. The more care and kindness we give to an animal, and the more we keep it with us, the more sense and goodness it will show.

14. HOW AN OX EATS.

1. As creatures of this kind require a great *quantity of* vegetable food, and as they are

likely to be often disturbed when feeding, and driven away by wolves or other enemies, they have a way of eating which is very useful to them.

2. Instead of having one stomach, they have four; and they are able to gather a great deal of food in a hurry, and to pack it away hastily.



Then, afterwards, when they have time and are able to find a safe place, they can chew and digest the green stuff which they carry inside them.

3. This is called chewing the cud, and all oxen, as well as sheep, deer, giraffes, and camels do it. As the ox has no teeth in the front of his upper jaw, he cannot chew the grass as he

crops it. If you will look at an ox feeding, you will see how he does it.

4. First he sweeps the grass together with his long tongue, and then tears or cuts it from the root. This he does by pressing the teeth of his lower jaw against a sort of hard pad in the upper one, and then giving his head a little jerk which pulls off the top shoots of the grass.

5. It is very good for the grass to be cut in this way, as it makes the plants sprout. One of the duties of animals like the sheep and ox is to improve the pastures while feeding there.

6. When the ox has got a good mouthful of grass, he gives it a roll between the grinding teeth at the back of his mouth and swallows it. The food goes into the largest of his four stomachs, which is called the paunch. Here it stays until the animal wishes to rest.

7. Then the food passes into the second stomach, which is lined with cells shaped like those of a bee's comb. For this reason the second stomach is named the "honeycomb." In it the grass is made into little cuds, or balls. The ox then forces these cuds, or balls of food, one by one up into his mouth again.

8. He chews them at his ease while lying comfortably in the shade, or standing up to his *knees in the water*, if he likes. The bison is

fond of chewing the cud while his body is half buried in cool, soft mud.

9. After the cuds have been well chewed the ox swallows them again, and this time they pass into the third stomach. This is lined with many plies or folds of skin, something like the leaves of a book. It is called the "moniplies" for that reason.

10. Here the stuff is softened and made fit for the fourth stomach, which is called the "reed" or "red." In this fourth stomach the grass which was eaten by the ox is at last changed into food fit to build up his body, and make flesh, bones, blood, or milk.

15. BISONS AND BUFFALOS.

1. Bisons and buffalos never live singly. They travel together in great herds. When any fierce beast comes to attack one of their number, all the rest join to protect it. Bisons have a very good way of defending themselves against wolves.

2. When they smell a wolf coming, which they are able to do while he is still a long way off, the bisons place themselves in the form of a circle.

3. The weakest and oldest bisons, as well as

the little calves, are placed in the middle, while the stronger animals stand outside to take care of them. When the wolves come up, they find nothing but an array of bristling horns ready for them. They are glad to slink away.

4. Buffalos, like bisons, live in large numbers together. If one of them should be left behind or lost, it becomes savage and moody from being alone. It is dangerous to meet one of these lonely wanderers. Its temper has become bad because it is wretched and afraid at finding all the others gone.

5. It will attack any person whom it meets. A cruel sportsman, who went out to kill harmless wild creatures for his idle pleasure, once wounded one of these wild bulls. He was going to fire at it a second time and kill it, when the poor creature gave forth a strange moan.

6. The hunter was surprised to hear this, because the buffalo when hurt never makes a sound of pain, but suffers in silence. He soon found out the reason of this noise. It was not a cry of distress so much as a signal.

7. The buffalo was calling the rest of the herd to which he belonged to come and help him. The next moment the whole troop of buffalos who had heard the sad complaint, came rushing to the spot. The man was forced to *drop his gun and* take to his heels.

8. He climbed a tree for his life, and the savage herd surrounded it in a moment.

ATTACKED BY WOLVES.

Creatures of this kind have sense enough to shake a tree, in order to make their enemy fall

down. But the man managed to make himself safe, and when they saw that he was beyond their reach they went off, taking the wounded one with them.

9. In India there is a kind of ox called the Zebu, which has a small hump above its shoulders. It is a very useful animal, as it will draw a plough or a carriage, though it cannot move very fast. Sometimes the people ride on its back; and it is able to carry its master all day at the rate of about five miles an hour.

10. The horns of oxen are of course meant to protect them. When buffalos are feeding in desert places, the females and young ones are put where they will be safe, while the strong young males stand near those spots from which danger is most likely to come.

11. Armed with his huge horns, sometimes as much as thirteen feet in length and eighteen inches round at their root, the ox does not fear to attack the tiger, and often drives him away or kills him.

16. WILD CATTLE IN ENGLAND.

1. At a place called Chillingham, in *Northumberland, there* is a herd of wild oxen. In

colour they are cream white, with red ears and a black muzzle. These wild cattle are allowed to roam as they like through the park, so they keep up the look and the habits of really wild oxen.

2. If a stranger comes near them, they stop feeding to stare hard at him. Perhaps they fancy that he is a wolf, or a bear, or something that they ought to drive away. They collect into a troop, toss their heads and stamp on the ground.

3. Then they begin to form into a circle round him, just as they would do if a fierce wild beast came to attack them. If the man or boy should make a sudden movement, or run towards them, they scamper off, but they soon come together again, and run round him.

4. Each time that the wild oxen are driven away they come back, and make the circle smaller and smaller round the person, so that at last their visitor finds himself quite unable to get out of the ring.

5. The creatures seem partly afraid, partly angry, and partly curious to know what that odd-looking animal is which has come into their feeding ground. A gentleman who was once walking through the park where these wild cattle lived found them pressing much closer to him than he liked.

6. Their horns were all round him, and he did not know how to force his way between their ranks. At last he remembered that, when a boy, he had been very famous for "turning a wheel;" a way of getting over the ground which every schoolboy knows. Taking a short run, he tried whether he could remember his old trick.

7. He found that he could still "turn a wheel" very well, in spite of his long coat tails. The cattle, who had never seen any creature do this sort of thing before, kicked up their heels and tore away from the odd unknown foe at full speed. The gentleman had plenty of time to run beyond their reach.

8. In some parts of England oxen were not long ago used for drawing the plough, and even for dragging carts. Four good Devonshire oxen could do as much work as three horses, and when dragging loads of hay from the fields, they could trot six miles an hour.

9. We use our oxen in this country now chiefly for the sake of their milk, butter, and cheese; good things which all come from the female ox, our good dairy cow. Though she is such a patient, quiet creature, some of the habits of the wild ox are still left in her gentle breast.

10. One of them is her dread of being left alone. Unless she has a human friend instead, *no cow is happy* when taken from the others

THE CHILLINGHAM HERD.

with whom she has been accustomed to feed. Company seems almost as needful to her as food, and without it she pines and loses her health.

11. The cows of a farm make themselves into a kind of herd, the oldest, called the "best woman," taking the lead. She it is who walks in front of the rest when they go to and from the field to be milked.

17. THE ASS.

1. The donkey, as we see him here, painfully toiling for his master, and often getting little but blows and hard words as his reward, is a different creature indeed from the donkey in his own land.

2. In our streets he is a poor drudge, with drooping head and ears. He is small and stunted, he looks dull and moves slowly. In his native country he is so fleet of foot that the swiftest Arabian horse can hardly keep pace with him. Nothing, unless it had wings, could hope to outstrip the wild ass.

3. While passing through Persia, a traveller writes: "On the desert, in the grey of the morning, we caught sight of two wild asses, which galloped away in front of us.

4. "They ran so much more swiftly than our horses that they had time, when they had got to *some little distance*, to stand still and look behind

at the strangers who had disturbed them, snorting, with their noses in the air, as if in contempt at our trying to overtake them."

5. This kind of wild ass wears a coat of soft mouse-colour, with a dark streak over the shoulders and down the back, like that of our English donkeys. Its proper home is Arabia, though it has spread to the countries around.

THE WILD ASS.

6. The coats of these creatures are neat and clean. They carry their heads very high, and have fine, well-formed legs, which they throw out gracefully. They are used for riding only, and fetch a very high price when caught and tamed.

7. Another kind of wild ass lives in Thibet. As the climate is colder, these animals are dressed in warm woolly coats, which grow thicker in winter and thinner in summer. These asses of Thibet are as large as horses.

8. Among all the kinds of wild ass the zebra

is the most beautiful, but he will not allow himself to be tamed. Though Mr. Rarey, the famous horse-tamer, tried to make a servant of the zebra, it gave him more trouble than all the savage animals which he had mastered.

9. Asses, when wild, do not live alone, but roam the wilderness in herds. Each troop of wild asses has its own leader, whom all the rest obey. It is said that when a number of wild asses take fright at anything by night they at once form themselves into a thick troop and travel through the darkness close together.

10. Those animals in the front keep their ears pricked forward, so as to be aware of any danger ahead; those in the middle of the party stretch their ears to right and left so as to catch an alarm on either side; and those behind lay their ears backward to listen for sounds in the rear.

11. In this way each one of the crowd shows that he is not thinking of his own safety alone, but is keeping watch for his comrades also. It is a lesson to human beings to remember others in times of panic, and not to be selfish.

12. Kindness, good feeding, and proper care would make our poor little dwarfed and half-starved English donkeys not only good and docile, but also strong, handsome, large, and spirited like their wild relations.

18. THE SHIP OF THE DESERT.

1. The home of the camel is in Arabia. In that land, one town is often divided from another by many miles of sandy desert, just as England is divided from Ireland by many miles of sea. We use ships to carry goods and men across the water, and in Arabia the camel is used to carry goods and men across the sand.

2. He carries heavy loads of all sorts over the scorching, sandy deserts for his master. So this animal is often called "the ship of the desert." He is fitted in every way for crossing wide, sandy plains, just as a boat is shaped for floating safely over the waves.

3. No horse or donkey could tread where the camel does, on the loose, dry sand—the hoofs of other animals would sink into it. But the foot of the camel is like a broad pad, or cushion; it spreads out as he puts it down, so that it neither slips nor buries itself in the soft sand.

4. Besides this, the camel is able to go for a great distance without wanting food or water, neither of which can be found in the desert. The reason of this is, that he carries a supply of both with him, inside his own skin.

5. The hump, or bunch on his back, is nothing

but a large lump of a kind of solid fat, and the camel is able, in some strange way, to use it as food, though he does not bite it, or take it into his mouth. The fat in his hump supplies the rest of his body with food.

6. It wastes away, and grows smaller and smaller when he is taking a long journey without anything to eat. And if the poor camel is starved, his hump goes quite away, so that his back becomes almost flat.

7. As for water, he carries a supply of it in his stomach. The camel has some curious cells inside him, a little like those in the comb of a bee, only rounder in shape. When he drinks he fills these cells, and stores the water up in them, so that he does not feel thirsty again for a long while.

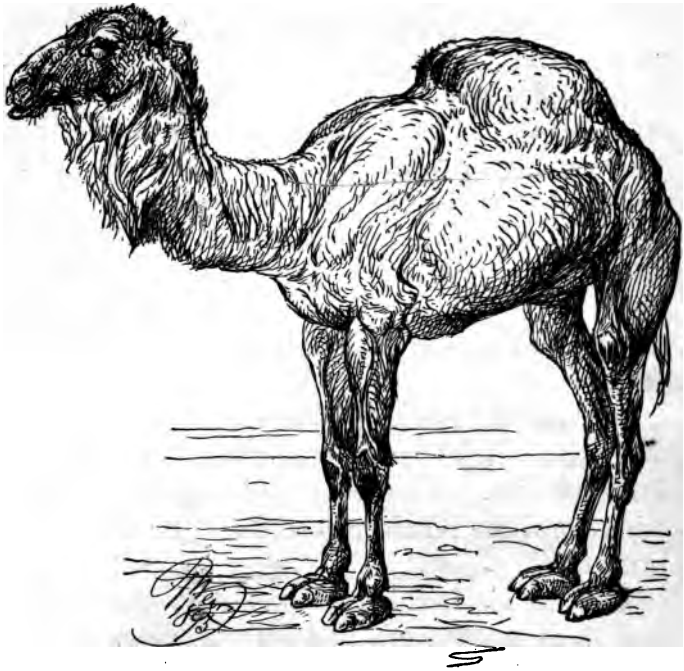
8. It is said that he can resist the broiling sun and burning heat of the desert for ten or twelve days without drinking. But he often suffers much from being kept too many days without food and water.

9. This animal is very clever at finding out a pool or stream, even when it is a great way off, and out of sight. He will rush headlong towards a spot where neither men, asses, nor any other creatures can see the hidden water.

10. The food of the camel, when he is left *to himself,* is very simple. He will browse on

the thorny leaves of such plants and shrubs as will grow in the desert, and enjoy what you would think he could not swallow.

11. When he is carrying his master, or a load,



THE ARAB'S FRIEND.

across the wild, barren places where no green things are to be found, a few dates, beans, or cakes carried on his own back, are given him. When this scanty food is gone, the camel must

feed on his hump, which often looks very thin by the time his work is done.

19. OVER THE SNOW.

1. If you and I had to live in Lapland for a time, we should soon learn to love and prize the reindeer. It is a gentle animal, like a cow in its nature, yet useful like a horse as well.

2. To the people in these cold northern lands the reindeer is like a sheep, goat, horse, and cow all in one. While she is alive, she gives rich milk, which can be made into cheese or used as it is.

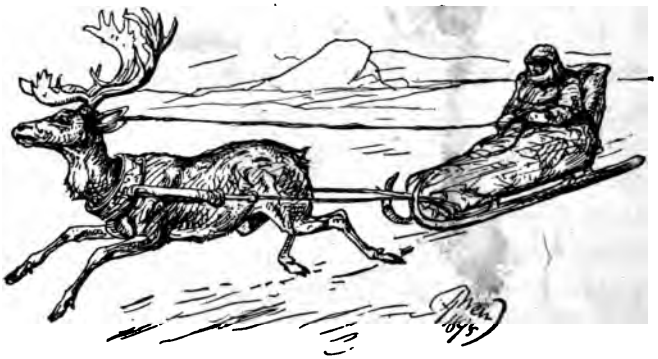
3. After the reindeer is dead, the bones, hoofs, and skin can be made into leather, glue, and knife-handles. When the ground is covered with snow, the reindeer is still able to pick up a good meal.

4. With his foot he scrapes away the snow, and finds underneath it a sort of moss. This seems to grow there on purpose for him, and it is called reindeer moss. It is of a pretty grey colour, and is branched something like his own horns.

5. This moss or lichen is to be found on Hounslow Heath, and in other parts of England.

It is very nourishing and pleasant food. No matter how deep the snow may be, the reindeer knows that his meal will be found beneath it, if he digs long enough.

6. And he softens the snow by thawing it with his warm breath. In summer time he will either browse on grass like a cow, or eat the leaves of trees and bushes, as goats and stags do. So it



EIGHT MILES AN HOUR.

is not difficult to keep him well fed all the year round.

7. When the reindeer draws his master in a sledge over the snow, he can travel at the rate of about eight miles an hour; but that is nothing to the speed of this creature when wild. A tame reindeer can perform a journey of one hundred and fifty miles in less than two days.

8. A horse would be useless in crossing snowy

plains. His feet would sink deeply into the snow and his strength would soon fail. But the broad hoofs of the reindeer are fitted for treading safely on it.

9. Neither men nor dogs can keep up with this animal when running over loose deep snow, and reindeer can race over ice like the wind. The wild reindeer smell their enemies a long way off, and will be out of sight in a moment.

10. When kept for milking, or pulling sledges, the reindeer lives close to the hut of his master, and soon becomes like one of the family. The wolves in Lapland are often so hungry that they attack the reindeer. Those that are wild have a good chance of escape, for they can run more swiftly through the snow than any wolf.

11. Though the reindeer has such large horns they are not of much use to him in fighting; he runs away when danger is near. It is likely that he uses his horns to hook down boughs of trees, so as to bring the leaves within his reach.

12. Stags have been seen doing something of the same kind with their antlers, so perhaps the reindeer may use his in this way.

20. WINGED FISHERS.

1. The sea-gull loves the salt sea and the wild wind. He can rock himself upon the waves as if they were his cradle. Or he can skim and float upon the gale without fear. He can dive like a duck when he pleases.

2. His wings are long and narrow, but very strong. He does not need to tire himself by flapping them often, for, if he spreads them out, the breeze will carry him along as if he were a soft white boat with sails.

3. Now and then you will see the gull pounce down upon the water. That is when he has caught sight of the silver back of some little shining fish. And he wishes to catch and eat it whole.

4. But besides the living fish which he swallows, this lovely bird feeds upon dead creatures which he finds floating on the waves. With his bright eye he can spy the smallest speck upon the sea, and his sight is so wonderful that he never makes a mistake.

5. No matter how high up he may be, the gull will never dart down on anything but what is good for him to eat. The sea-gull eats things which you would call very filthy and nasty.

6. But he does a great deal of good by getting rid of these things. Those floating scraps and dead fish make a bad smell, turn the water putrid, and cause fevers and other illness. Unless the gulls took them away, they would do much harm.

7. These birds make a good meal on the evil and foul things which men throw away. It is dirty and foolish of people to throw rubbish into the sea or along the shore. It is not dirty of the gulls to eat this rubbish, but very useful and good of them to clean up the mess.

8. When the weather is very cold, and the gulls can find no little fishes, or other food, upon the frozen shore, they fly up rivers to look for something in the running water, which never freezes.

9. Often, when the sea is too rough for their fishing, they come into the fields and walk about with the rooks. They pick up the worms and grubs turned out by the plough. So they are most useful to the farmer.

10. The common gull has a pure white breast. Its back is the colour of slate, and its wings have two pretty black tips. In summer it builds a nest of seaweed, with sometimes a little grass mixed with it. It lays two or three dusky eggs.

11. The young sea-gull likes to sit on a ledge

of the rock as soon as it can scramble out of the nest. It looks like a ball of soft grey down. The nursery of this young gull is often so narrow that he can hardly turn round in it.

12. Yet the little gull is never giddy. And he does not tumble over. He has sense enough to know that he had better keep still, so he does

IN SEARCH OF FOOD.

not jump about or flap his wings till the right time comes for him to learn how to fly.

13. He never shakes himself, or makes the bustle and fuss that other young birds do when they are fed. When the old birds bring his breakfast, he sits with his great mouth wide open, and is calm and patient while they pop something good into it.

21. THE SEA-GULL AND HIS WIFE.

1. There is no parent more careful than the sea-gull. Though many hundreds of young gulls may be seen sitting on the same cliff, each mother gull knows her own child, though they would all look just alike to us.

2. She will fly straight up to her own youngster, and put down his dinner in front of him, as soon as he is able to pick it up himself. This meal is made of crabs, shrimps, or some other fish. And the old bird takes care to soften the food in her own crop first, as a pigeon does, before she lets her little one have it.

3. There is hardly any part of the world where gulls of some kind are not found. They will often follow ships, and do not seem afraid. When left quite free, these birds will often come again and again to visit the same house where they have once been fed.

4. One morning a gentleman, who lived near the coast of Cornwall, saw a sea-gull outside, as he was sitting at breakfast. He tossed a bit of bread to it through the open window. The gull was pleased, and snapped it up quickly.

5. The next day, at the same hour, the gull *came again,* and was again fed. After this the

gull never failed to show himself day by day at the same window. And he always kept to the proper time.

6. He would stalk up and down till he got his breakfast, which was a basin of bread and milk. After eating it he said good-bye till the next day. The only time when he did not come,

YOUNG SEA-GULLS.

was when a great shoal of pilchards came near the shore.

7. And then I suppose he was busy catching them. This friendly gull used to bring his wife with him sometimes. It seems as if these gentle birds liked to be near us, for they have often been known to come into houses and take food from the hands of those who were kind to them.

8. As they are so tender to their young, and so useful to us, we ought to take great care that sea-gulls are never hurt or killed. It is their love towards their helpless young that keeps them flying near the cliffs in summer time, within reach of guns.

9. The sea-gulls could soon get far beyond our reach if they liked; spreading their strong wings to soar away. They might take refuge where none could touch them. But they will not leave their little ones to starve. So it is both cowardly and cruel to shoot the faithful birds.

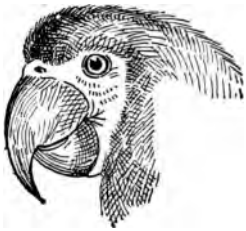
10. When girls and women wear the wings of these birds in their hats, it is because they forget that the poor gull died in terror and pain in order that those feathers might be stripped from his back. The pretty gull might still be alive and merry, if they had not taken his life for the sake of stealing his wings.

11. I think that no kind girl or woman would wish to kill a bird herself. But if she wears its feathers, that is just as bad, for by doing so she makes other people kill them.

22. BEAKS OF BIRDS.

1. As birds eat many different kinds of food, we shall find that their beaks are not at all alike.

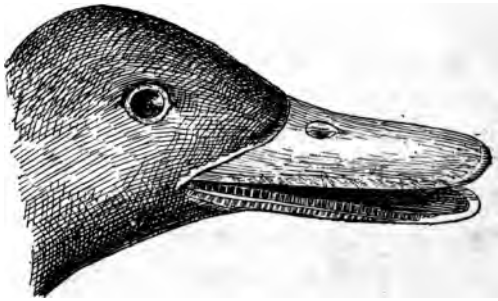
Those birds which tear their prey, like eagles, hawks, and owls, have very hard bills with hooked tips.



PARROT.

DUCK.

2. This kind of beak acts like a knife, helping the bird of prey to separate the flesh from the bones of a dead bird. And the parrot, who must



THE DUCK'S STRAINER.

bruise nuts, corn, and other hard things, has also a strong hooked bill.

3. The woodpecker is obliged to find insects by boring with his beak into the trunks of trees, and so he has, too, a hard and powerful beak.

Other birds which feed on softer food have softer beaks.

4. The bill of a duck is not unlike a couple of long flat spoons. Inside the beak, round the edges, there is a row of strong, sharp-pointed prickles, almost like a set of small teeth. Look at a duck feeding in a pond, and you will see that she plunges her bill into the weeds and slush.

5. She sucks up a beakful of slimy stuff, and, as soon as her mouth is full of it, she begins to clatter her beak. All the muddy water runs out between the rows of prickles, as she holds her beak nearly shut, and the worms, grubs, and snails are left behind for her to swallow.

6. It is almost as if the duck carried a little sieve or strainer in her mouth. She is able to taste as well as to feed by means of her beak, for she has nerves at the tip of it. The wren, robin, and other small birds which feed on worms and insects are called soft-billed birds.

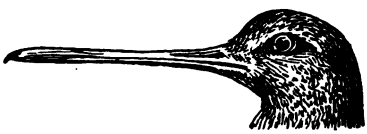
7. The eyes of these small birdies are able to see the very smallest insect, and their pointed beaks can pick up morsels, such as the eggs of insects, which are so tiny that we should never notice them.

8. Our fingers, too, would be far too big and clumsy to get at the little blights and hidden grubs, no bigger than a grain of sand, which hide between the cracks in the bark of trees.

9. But little Tommy Titmouse and his feathered friends can do it, and so we ought to welcome their blue caps and yellow waistcoats when we see them in our gardens. They come to clear the bushes and trees from the insects which would spoil the fruit.

10. Rooks do not look much like ducks, but they also feel with the tips of their beaks when they plunge them into the ground. The beak of a rook is shaped like one end of a pickaxe, and

ROOK.



SNIPE.

he forces its sharp point into the hard clods to grope for grubs on which to dine. No bird is more useful than the rook, for the grubs which he eats would spoil the crops if he did not eat them up.

11. The swallow does not need to peck on the ground for his food. He opens his mouth wide and snaps at flies as he goes through the air. His beak is useful to him in quite another way, though it is not fitted for breaking up his food.

12. When he is building his nest, the swallow

uses his short, small bill as a mason uses his trowel for mixing mortar. With its blunt, broad tip he is able to plaster the small lumps of mud which he fetches in his mouth for building the walls of his nest.

13. A very curious bird called the crossbill has a beak which looks crooked and useless. But it is given to him as a tool for splitting apart the scales on fir-cones. Under the flat husks which cover the cone the crossbill finds the seeds on which he feeds.

14. He need only wedge the two points of his odd bill, which cross each other at the tip, deep into the fir-cone, give one twist with his beak, and get at the good meal which lies under the hard scales.

15. Some birds are obliged to get a living by boring with their beaks into soft earth, bogs, or sandy sea-shores. The snipe is one of these. All birds which find their food in this way have not only long legs like stilts but long bills.

16. With these slender beaks they hunt for buried worms and insects, sticking their beaks into the moist earth as a pin is stuck into a pin-cushion. Most birds have a pouch or bag beneath the root of their bills.

17. In this they carry food to their young ones, and often make it soft first. The pelican *has a very large* pouch, which it fills full of

fishes. The rook has a bag also. Even the little goldfinch softens seeds for her nestlings in the bag below her beak before she feeds them.

23. BIRDS' CLAWS.

1. The feet of birds are just as well fitted for their use as are the beaks. Birds of prey have such strong, sharp claws that they can kill the small birds or mice very quickly, almost before

FOOT OF A BIRD OF PREY.

FOOT OF A SWIMMING BIRD.

the little things have time to feel pain or know what is going to happen.

2. But the duck, who swims, has a web stretched between her toes, which helps her to paddle easily along on her yellow oars. Another bird, called the nightjar, has a jagged claw on his foot. This is because he catches beetles which are flying.

3. He will stretch out one foot and seize his winged prey. The jagged claw makes him able to catch and hold a cock-chafer fast.

4. The claws of most small birds are fit for clasping twigs, but the skylark, who roosts on the ground, has a long spur or heel, which helps him to stand steadily beside his wife as she covers the nest with her wings.

FOOT OF A NIGHTJAR.

5. All his claws are rather long. As the skylark builds his nest in places where it may be often in danger, his long claws are often put to a strange use.

6. It is thought that he takes his eggs or young and carries them away to a safer place, and his toes, with their long claws, will just reach round one of his eggs, so as to hold it firmly.

7. If we look very carefully at the foot of a fowl, we shall notice that it has a very small web stretched between the front toes. But the sparrow, who does not walk so much on the ground, has no such thing. The web strengthens the foot for treading firmly.

FOOT OF A FOWL.

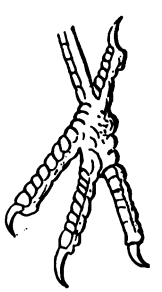
8. When a cock or hen is strutting about you may see that each time its foot is lifted from the ground the claws close together. The feet of all birds, except swimming birds, shut in the same way. This *shows that it* is more easy for birds to settle on a

round branch than to spread out their feet quite flat.

9. Though poultry like to run about by day, they ought to have a comfortable pole or branch to roost upon at night. It is very painful for fowls, and for small birds too, when they are forced to sleep standing on the ground, or perching on bits of wood which their claws cannot clasp properly.

10. Rough branches of trees, of a large size, are the best things for poultry; or, if a pole is given them, it should be large enough for their claws to grasp easily. The claws of birds grow as our nails do. When fowls scratch in the earth for food they keep their claws in good order.

11. New points grow as fast as the old are worn away, and there is no fear that the claws should grow too long. This is one reason why fowls should always be allowed a good run. Sore feet come from overgrown claws.



FOOT OF SPARROW.

12. Small birds, such as linnets, larks, robins, and sparrows, keep their claws in good order by the constant rubbing against rough twigs on which they perch, or against the stones and earth when they settle on the ground.

13. But when these poor little creatures are

shut up in cages, where they are obliged to stand on smooth, slippery perches, and are never allowed to peck their food from the ground, they nearly always suffer from bad feet.

14. There are many birds which seem to prefer climbing from twig to twig to using their wings. The parrot is one of these. It is sad to see how poor Polly will clamber round the gilt wires of his prison, using his beak and his toes as if he were afraid of falling.

15. He would like to be at home again in his own beautiful woods across the ocean, where the trees were laden with sweet fruits and nuts, so that there was some fun in climbing. He is not happy away from the warm climate and his friends, the other Pollies.

16. Though he does not say so, he wishes to be free. What a pity it is that kind people can take pleasure in seeing poor Polly a captive! They had far better leave him in his own land where he is happy, than bring him to this country where he feels ill from cold and wrong feeding.

FOOT OF A PARROT.

17. Notice the toes on Polly's wrinkled grey foot, and you will see that there are two in front and two behind, instead of three in front and one behind. This queer foot makes it easier

for a climbing bird to swing himself from bough to bough.

18. Polly will not take one foot up till he has put the other safely down. He is a wise bird. Sometimes he makes use of his beak as a sort of third foot, and hooks himself up to the branch above him. And now and then he uses his bill as a little drinking-cup.

19. The parrot, and his smaller cousin the parakeet, often choose to drink while hanging head downwards. Dipping up the dew from some flower-cup or the water from a spring, they will hold it in the large upper bill and swallow the pleasant draught at their leisure.

24. ROVER IN CHURCH.

1. 'Twas a Sunday morning early in May,
   Beautiful, sunny, quiet day,
   And all the village, old and young,
   Had trooped to church when the church bell
   rung.

2. The windows were open, the breezes sweet
   Fluttered the hymn books from seat to seat;
   Even the birds from the pale-leaved birch
   Sang as softly as if in church.

3. Right in the midst of the minister's prayer,
There came a knock at the door. "Who's there,
I wonder?" the grey-haired sexton thought,
As his careful ear the tapping caught.

4. Rap-rap-rap-rap, a louder sound,
The boys on the back seats turnéd round;
What could it mean? for never before
Had anyone knocked at the old church door.
Again the tapping, and now so loud,
The minister paused (though his head was bowed).

5. Rappety-rap! This will never do,
The girls are peeping and laughing too!
So the sexton tripped o'er the creaking floor,
Lifted the latch and opened the door.

6. In there trotted a big black dog,
As big as a bear, with a solemn jog,
Right up the centre aisle he pattered,
People might stare, it little mattered.

7. Straight he went to a little maid,
Who blushed and hid as though afraid,
And there sat down as if to say,
"I'm sorry I was so late to-day.

8. "But better late than never, you know,
Besides, I waited an hour or so,
And couldn't get them to open the door,
Till I wagged my tail and bumped the floor.
Now, little mistress, I'm going to stay,
And hear what the minister has to say."

9. The poor little girl hid her face and cried,
But the big dog nestled close to her side,
And kissed her, dog fashion, tenderly,
Wondering what the matter could be.

10. The dog being large (and the sexton small),
He sat through the sermon and heard it all,
As solemn and wise as anyone there,
With a very dignified scholarly air.

11. And instead of scolding, the minister said,
As he laid his hand on the sweet child's head
After the service, "I never knew
Two better listeners than Rover and you."

JAMES BUCKHAM. ("Humane Educator.")

25. OUR SWEETEST SONGSTER.

1. Though the lives of all birds are full of joy, the skylark seems to be the happiest of

them all. He feels so glad that he does not know what to do. Though his nest is on the ground, he is not content to sit there and sing.

2. With a sudden spring he rises from the earth, and, before he is a yard above it, he bursts forth into a sweet cheerful song. Upward he goes, with his head turned towards the breeze, floating now a little to this side, now to that, but not going round and round in circles, as the eagle does.

3. As he mounts higher, he pours forth more music, never stopping to take breath. What lungs he must have! Could you run up hill singing all the time? No, the lungs of a skylark are different from ours.

4. He has wonderful wings, and an eye with three lids to it, so that the glare of the sunshine may not dazzle him. Most birds have two lids to each eye. The lark besides these has a thin lid, which he can draw across his eye from one side, like a gauze veil.

5. Soon the skylark looks like a speck in the clouds, and his warble sounds faint. Yet he seldom goes really out of sight, and not often more than a thousand feet from the ground.

6. Then the little bird remembers his home and mate far below. She cannot sing or mount so high. Having gone as far up as he likes, he does not stay there, but at once begins to

descend. This he does not do in the same way as he went up, at a steady even rate.

7. When the lark is coming down he closes

A HAPPY BIRD.

his wings and lets himself drop a little way, fluttering for a moment, or hovering as if to rest them, before he drops again another step. Lastly,

as he draws nearer to the earth, he leaves off singing, and comes down more quickly.

8. But before touching the ground, the skylark sweeps away in a nearly straight line for a short distance, before he alights and is hidden among the grass or corn. If he should hear the voice of his mate from the field below he will drop down suddenly like a stone to the spot where she is waiting for him.

9. But if there should be eggs or little ones in the nest, he will take great care how he draws near it. The skylark is afraid that somebody may find out where his house is, and perhaps steal his treasures, if they see him flying straight to it.

10. Is it not a pity that we have made animals and birds dread us so much by behaving badly towards them?

26. THE LARK'S NEST.

1. The skylark knows that some cruel boys rob nests. So he will perch at some little distance from his home, and creep through the thick grasses to the place, that no boys may guess where he lives.

2. The nest is made in a little hollow in the

ground; a cart-rut, or hole made by a horse's

A RIDE ON MOTHER'S BACK.

hoof, or else in a shallow pit which the bird scoops out on purpose. Larks are very shrewd

in choosing a place where their nestlings will have some shelter in rough weather.

3. And during storms of wind and rain the little mother is careful to sit with her beak turned towards the gale: in this way she is better able to keep the nest dry, as the water runs more easily from her back and wings.

4. She will take care to have a clod of earth, or a stone, between her nest and the east wind if she can. Also she will choose a spot where the soil is light, or some place where the rain will drain itself away from under it. The nest is woven out of dry grass, lined with fine fibres.

5. Four or five eggs are laid in it, and two broods are reared in the year. As the skylark often builds in hayfields, the birds are sometimes sadly troubled when the grass is cut. The mowers come and lay their nests bare.

6. The old birds have been known to build a sort of penthouse or dome over their eggs, to hide them when the standing hay is gone. They have also been seen carrying away their eggs or little ones.

7. The heel or hind claw of the skylark is very long and stout. As he roosts on the ground, this strong claw is useful to him. Most small birds clasp a twig as they sleep, and it would be painful to them to rest on the foot *spread out flat.*

8. But besides helping to bear his weight at night without hurting the foot the large claw of the lark has another use. It is with this that the skylark is able to take up the eggs, and to carry them away when danger is at hand.

9. These birds also carry nestlings in their claws or on their backs. A pair of larks once built their nest in a grass field, the owner of which was forced to cut his hay early. The young larks were only just hatched when the hay was mown.

10. As the haymakers drew near the nest, the old birds began to take fright. At last the mother bird crouched flat to the ground, while the male bird, by dint of much pulling and pushing, got one of the young ones out of the nest and hoisted it on to her back.

11. She flew away with it and came back for another. This time the father bird took his turn, and in this way the affectionate couple placed all their brood in safety before the mowers came up.

12. Two larks were once seen together in the air, uttering loud cries. One of them had a young lark in his claws. But his child was too big and heavy for him to carry, the good father was obliged to drop his son, and the little bird was picked up dead.

27. DON'T CAGE THE LARK!

1. It is indeed a wretched sight to see a skylark in a cage. And it seems very strange that anyone can take pleasure in doing so selfish and cruel a thing as to shut such a creature as this up in prison.

2. Though the lark is obliged to sing in his cage, because he can talk in no other way, he is not happy. Many a lark kills himself by knocking his head against the top of the cage in his eager and continued attempts to fly upwards.

3. What he wants is the sky, his mate and nestlings, space to stretch his wings in, and places in which to hunt for the right sort of food. Besides the thoughtless and unmerciful people who cage skylarks there are many greedy folks who kill them by dozens to eat.

4. We cannot give the skylark in a cage the proper changes of food which he needs to keep him in health. He ought to roam over wide fields, picking up the seeds of weeds and a few scattered grains of dry corn. His favourite food is the eggs of insects like the grasshopper, and the grubs of others like the ant.

5. *By searching* for and destroying these he

does the farmer much good. The turnip-moth lays its eggs on the ground. And this insect is one of the most harmful to be found. In autumn larks fly in flocks, and then they destroy this insect.

6. In spring it is true that the larks will pull up and nibble a stalk or two of young wheat. But these birds never touch the blade, nor the root, only a small, tender, white bit of stalk which joins the two.

7. If farmers were to sow their grain a little deeper it would prevent larks from plucking it up. If the lark cannot get at this one sweet bit of stem he will not touch the young wheat at all.

8. Larks, like all birds, have very keen eyes. This makes them able to spy their food a long way off and to find out the smallest insects. In winter time skylarks clear off many insects' eggs from the fields, as well as eating seeds of weeds.

9. The farmers are very foolish when they allow birdcatchers to come and catch the larks at that time. If we had no small birds in our fields, crops would not grow at all, on account of the weeds and insects. And birds of prey like the hawk prevent small birds as well as mice from becoming too many in number.

10. A gentleman was once riding along a road, when a skylark suddenly dropped on the pommel of his saddle, as if it had been shot. It lay

like a wounded bird, with outspread wings. When the gentleman tried to take it up, the lark slipped down by the horse's feet and lay there.

11. On looking up, the rider saw a hawk poised above, ready to pounce down as soon as the lark left his place of refuge. The little bird got up again on the saddle, and waited till her enemy flew off.

12. Then she flew like a dart to the hedge, glided among the grass, and was safe. But had the hawk seized her in his talons to kill her quickly, the lark would have been far better off than if the gentleman had kept her in a cage to pine slowly.

28. THE USEFUL SWALLOW.

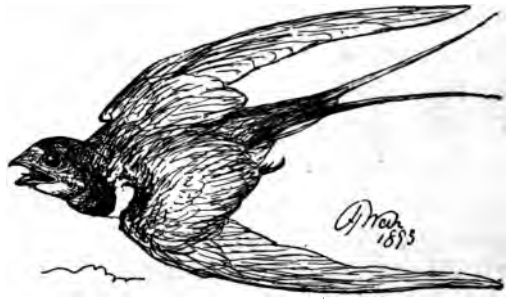
1. There are four kinds of swallow which visit this country. Among these the chimney swallow is perhaps the prettiest. He has a reddish throat, a white breast, and a long forked tail.

2. The rest of him is dark, but as he darts by on his swift wings, you can see a bright blue gloss shining upon his smooth back. Though he is only about six inches long, he is a brave traveller.

3. And he comes to us across the sea from *Africa, where* he spends the winter. The swal-

low reaches England early in April, and he stays till October. After flying about for a few days to enjoy himself after the journey, he and his mate begin the business of making a nest.

4. Though the swallow lives almost always in the air, and is not fond of perching, he may be seen picking up mud from the road, or clay from the side of a pond for his nest. His beak is like a mason's trowel.



CATCHING INSECTS.

5. He makes the clay or mud into small pellets or round bricks. It is thought that the swallow mixes something sticky from his own mouth with the clay for his bricks. As soon as he has made the ball of clay, he carries it in his beak to the place he has chosen to build in.

6. This is, as a rule, some chimney or shed, where his mate may have shelter while she is sitting, and his young be under cover after they are hatched. The swallow plasters the balls of

mud very carefully with his bill. He makes the wall of his little house very firm and strong.

7. And he builds the sides of his mud hut a little bit at a time. In one morning he will raise his wall half an inch high, and then he will go away to amuse himself with his wife, and catch flies all the rest of that day. This is to give his work time to dry.

8. He knows that if he piled up too much wet mud at once it would all slip down again, so he takes good care to let the work of one day get quite dry before he adds to it.

9. When the nest is done, it is shaped like a shallow cup open at the top. It is nicely lined with feathers, which the swallows catch as they float in the air. Indeed, he does almost all that he has to do without settling on the ground.

10. He takes his bath as he is flying along, by dipping his breast into a pool or river. He drinks without stopping his flight as he whirls over the water. His feet are short and rather weak, his wings are long. He is not at ease on the ground.

11. The mother swallow lays four or five eggs at a time; and she brings up two broods in the year. She and her husband are very faithful to their little ones. While the mother is sitting her mate feeds her with flies.

12. He is obliged to be very busy indeed;

for most of the flies which these birds eat are so very tiny that many thousands do not make one mouthful for them. You could hardly see them at all, yet the swallow has such sharp eyes that he sees a gnat when it is fifty yards off.

13. No person could count the number of these small insects which a swallow catches in a day. I do not know what we should do without swallows, for the air would be so crowded with flying insects that we could not breathe if these birds did not clear them away.

14. When the young ones are hatched, both parents set to work at feeding them; and then the number of insects wanted is doubled again and again. In gardens where plenty of swallows come, the fruit, flowers, and plants are always finer than in places where people are so foolish as to drive them away.

29. A FRIEND IN NEED.

1. It is a lovely sight when the mother swallow first brings her young from the nest. She sets them in a row upon some railing, or on the edge of a chimney, and coaxes them to try catching flies for themselves.

2. She is most anxious that they should learn

to use their wings, so that they may be ready for their long journey; but long after the young are able to pounce on the flying insects the father and mother will feed them.

3. These birds collect into huge flocks when the hour has come for flying back to Africa. Sometimes the spires of churches or roofs of houses are quite black with crowds of swallows getting ready to start.

4. They like to keep together, and they seem to be chattering to one another as fast as they can. A gentleman once saw a vast crowd of swallows on the roof of a college. At first he could not think what they were all doing.

5. So many of them were there that they looked like a thick cloud, and they were all making sad cries of pity and fright. On looking more closely, the gentleman saw that one of the swallows was in great trouble.

6. He had slipped his foot in some way through a bit of packthread which was hanging from a spout on the roof. The string had become tied fast round his leg, and held him fast. The poor bird could not get away.

7. His strength was almost gone. It was of no use for him to flutter and struggle any more. He hung at the end of the thread, crying from fear and pain. Every now and then he would *try* once more to get away, but in vain.

8. And at the sound of his plaintive voice more swallows kept coming to the spot. They seemed to be holding a sort of meeting, and trying to find out a way for helping their friend.

9. At last one of them, more wise than his fellows, hit on a plan, and in his own way he managed to tell the rest. They began to try

JUST OUT OF THE NEST.

what they could do. Each swallow in turn flew by the dangling end of packthread from which the poor bird hung.

10. And every swallow, as he went by, struck at the string with his bill. The swallows went on in this way, aiming blows at the string every second. Half an hour was passed thus: at the end of this time the string broke and the captive was set free.

11. After this, some of the swallows who lived a good way off went home in a great hurry; but

the rest, whose homes were near, stayed until night, keeping up a great talk, as if they were chatting about the joyful news, in glad tones.

12. This charming bird, the swallow, is very dear to us, because he likes to dwell under our own roof. In cattle-sheds and near stables he is a great comfort to the horses and cows, for he frees these creatures from the flies which tease them.

30. FRIGHTENED BIRDS.

1. "Hush, hush!" said a little brown thrush
To her mate on the nest in the elder-bush.
"Keep still! Don't open your bill!
There's a boy coming bird-nesting over the hill!
Let your wings out, so
That not an egg nor the nest shall show.
Chee! Chee! It seems to me
I'm as frightened as ever a bird can be!"

2. Then, still, with a quivering bill,
They watched the boy out of sight o'er the hill.
Ah, then in the branches again,
Their glad song ran over vale and glen.

Oh, oh! if that boy could know
How glad they were when they saw him go,
Say, say, do you think next day
He could possibly steal those eggs away?

ANON. ("Humane Educator.")

31. ROBIN REDBREAST.

1. Every boy and girl knows what a robin is like. He is a great favourite with us all, because he trusts us more than other birds do, seeming to take delight in coming near our houses, and choosing to make his nest in our gardens.

2. All through the spring and summer, he is very busy with his home and his little ones. He builds his nest on some sunny bank, or near the bottom of a hedge, or else he hides it among the creepers which grow over a wall or cottage.

3. He rears two or three broods in one season, and his nest is made of dried leaves, moss, and grasses, and lined with hair. The eggs are five in number, and are white, spotted with pale reddish brown.

4. In places where people never touch the nests of birds, or frighten them, the robins become quite tame. The mother bird will go on sitting while you peep at her between the leaves, and will even take food from your hand.

5. Some day, when all people learn to treat them well, birds will leave off flying away when we draw near. The robin thinks that the air and ground for a few yards round his nest belong to him. He rushes at any other bird who comes near the spot, and is quite fierce in driving him away.

6. Once a robin chose to build in a greenhouse, and he killed twenty other robins one after another, who all thought that they should like to live there too. Now and then he chooses very odd places for his nest. He will build inside a room where people are living, in a curtain, a letter-box, or a pump.

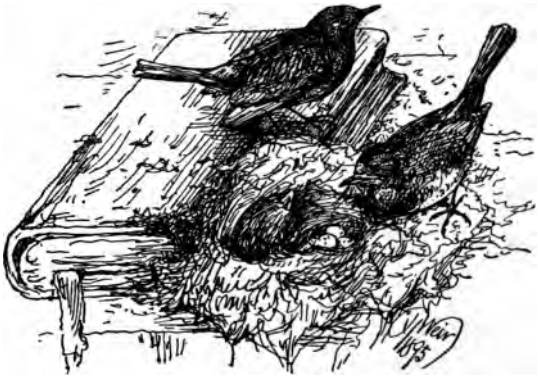
7. At one time a robin and his mate found a very strange corner indeed for a house. It was a big Bible which stood on the reading-desk of a church. They brought leaves, moss, and hairs, which they had picked up in the fields, and wove them round the edges and corner of the large book in such a way that it could not be opened without spoiling the nest.

8. When the clergyman came to read on Sunday, he found that the little mother robin had laid two eggs already. He was a kind man, and he knew that people cannot be truly good unless they are merciful. So he found another Bible to use, instead of the big one.

9. *After a little* while there were young robins

in the nest, and all through the service time the father and mother birds came to and fro, to feed them. Not one of the children who came to that church wished to trouble the robins, or to touch the nest, though they liked very much seeing the young ones fed.

10. Out of doors the robin may soon be taught



A NEST IN CHURCH.

to perch on the shoulder of any person who feeds him. He will come at the sound of a whistle, pick up the crumbs that are thrown for him, and say "thank you," as sweetly as he can. After a time, he will learn to fly down at the sound of a footstep, if it belongs to anyone whom he loves.

32. SINGING FOR A SUPPER.

1. Earthworms are the chief food of robin-redbreast, and of these he eats great numbers. Though worms are very useful creatures out in the fields, where they help the ploughman by making holes which drain the soil, and by making rich, good mould, we do not want many worms in our gardens.

2. Worms do mischief in garden beds by moving about under the roots of young seedlings; the spade and rake do the work of making the earth light, and the gardener brings rich mould in his barrow.

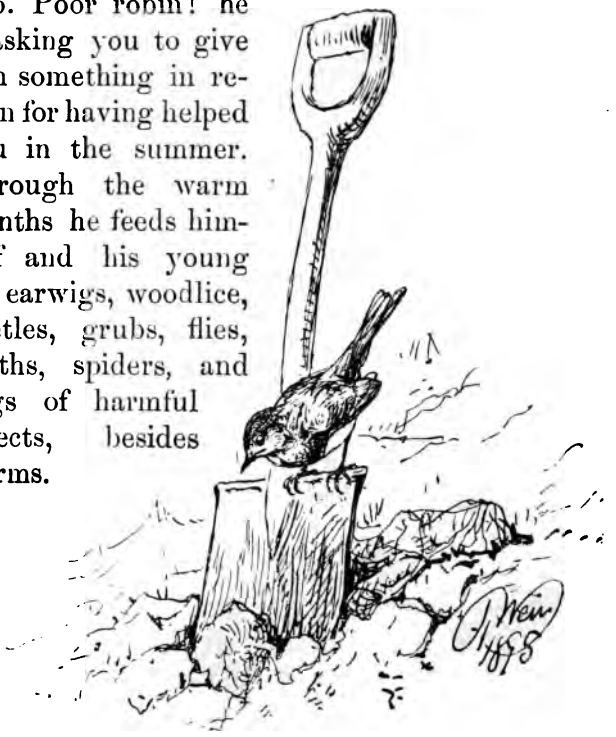
3. The gardener has no better friend than the robin; and this gay little bird is so eager to get the worms and grubs which the man digs up with his spade, that he will come and perch upon it while he is digging.

4. If you take a walk round the garden when the weather is beginning to be cold, robin-redbreast is sure to come out before long. He hopes that you may be going to dig. He thinks that you may uncover some slug, worm, or insect, and that he may snap it up for his breakfast.

5. It is not easy for him to find a meal when *the ground is* hard from frost. The worms

and insects bury themselves deeply underground or hide, and his slender bill is not strong enough to break off the clods and reach them.

6. Poor robin! he is asking you to give him something in return for having helped you in the summer. Through the warm months he feeds himself and his young on earwigs, woodlice, beetles, grubs, flies, moths, spiders, and eggs of harmful insects, besides worms.



HELPING THE GARDENER.

7. We must not let little robin starve, after he has been so good to us. That would be unjust as well as unkind. Throw out plenty of crumbs in cold weather, and he will tell

you plainly by his song how thankful he feels.

8. The robin is a cousin of the nightingale. The two birds belong to the same family, and are alike in many ways. But the sweet warble of the nightingale is not heard all the year round, like the cheerful note of the robin.

9. We cannot help loving robin best, because he is ready to stay with us, and keep up our spirits with his pleasant note, through the long dark days of winter, when other birds are mute.

10. He does not fly away to a warmer country as the nightingale does, so we ought to make sure that he is never in need, since he is so faithful. He wants water as well as dry food. Robin is glad to come indoors for shelter at night when the weather is bitter.

11. A lady once had a tame robin which lived in her garden. She fed it every morning, and throughout the winter it slept in her bedroom. Robin used to come in and go out as he liked.

12. He chose to roost on a nail near the ceiling, and when the candle was burning, he would sit perfectly still, peering at what was going forward with his bright, round eye.

13. In the morning he would chirp and hop about the room most merrily, coming quite close to the lady for his breakfast.

14. After this, he usually flew out at the open

window, spent the day in the garden with his feathered friends, and came back at about four o'clock in the afternoon.

15. He would hop about the sill till the window was opened, when he darted in to his nail, chirping a note of friendly greeting, and looking about as if waiting for a smile or a kind word in return.

33. HOW DO BIRDS FLY?

1. Most people who were asked, "How does a bird fly?" would reply, "With his wings." And this would be a good answer, as far as it goes. But it is very easy to see that it is not his wings alone which make a bird able to fly.

2. A duck or a goose may often be seen standing up and flapping its wings up and down, and yet he does not rise one inch above the ground. There is, then, something more than a mere flapping of wings wanted to raise the body of a bird from the earth and launch it into the air.

3. What does the bird need besides this? If you were to watch a pheasant when he wished to fly from his nest in the wood, you would soon see. He does not begin by flapping his wings, for he knows that would be of no use.

H
Riverside Branch,

4. The strokes which he gave downwards might help him to rise, but then the other strokes which he gave upwards would bring him down again. The goose or duck, when he has this queer fancy for flapping his wings, usually gives a loud scream or makes a quacking at the same time.

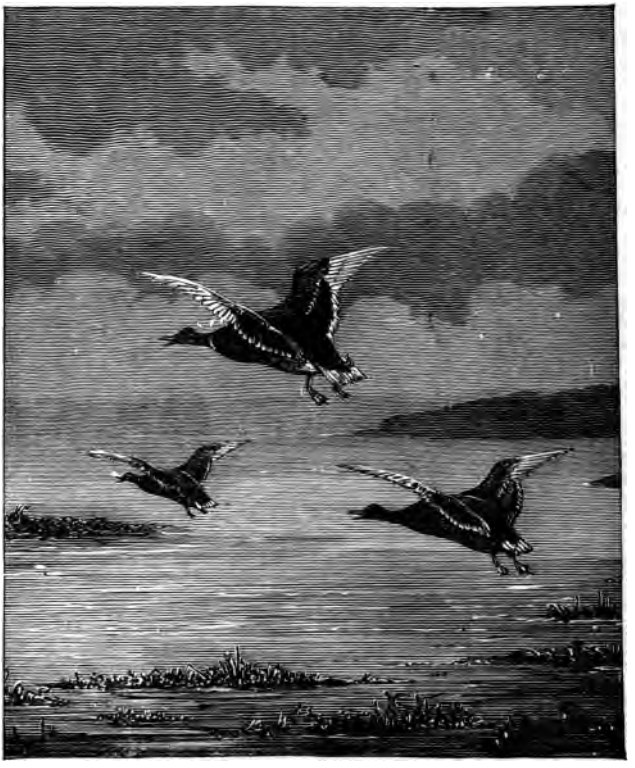
5. By doing this he gets rid of much air from his lungs. Nobody, whether boy, man, or goose, can make a great shouting without wanting to draw a deep breath afterwards. This shows that making a cry of any sort empties the chest of air.

6. But the pheasant, when he means to fly up, draws a long, deep breath first. Thus he fills his body with air and makes it light. He next crouches down with his legs doubled up like springs, and leaps as high as he can into the air.

7. He then spreads his broad wings, taking care to give none but downward strokes with them. He wants to get higher and higher, or at any rate to keep above the ground, and he knows that one upward flutter of his outspread wing would take him back towards the earth.

8. If you take a kite into your hand and try to fan the air with it up and down, you will soon feel how much the air pushes against the flat *paper and resists its* passage.

9. The wing of a bird finds the same resistance, and it is by beating the air with one



WILD DUCKS.

downward stroke after another that he makes his light body rise or keeps it from falling.

10. But how does a bird manage so as not to

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give upward strokes which would carry him down again? He is careful to raise his wings, after each downward stroke, with the feathers closed like a fan. Thus they do not beat the air in an upward direction.

11. If he were to spread out his feathers flat and just flap his wings up and down, he would not rise, but sink by degrees to the ground, and this is what he does when he wishes to alight.

12. A very little trouble is enough to keep a bird from falling to the ground, because his body weighs little and his broad wings can easily support it by a few downward strokes. It costs him more effort to rise.

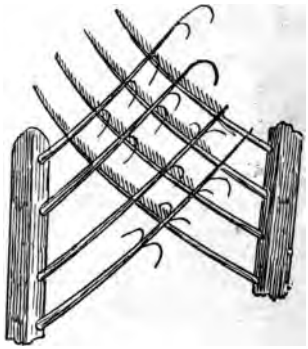
13. The wings of birds which fly far and wide are made longer and stronger than those of little birds like sparrows, which do not care to do more than flutter from one tree to another. Each bird can go higher or lower, as he pleases, by altering the upward and downward strokes of his wings.

14. Those who know how to swim will understand more easily than others how a bird uses his wings, for a very good idea of the manner in which a bird forces his way through the air, can be formed by a swimmer who forces his way through the water.

34. FEATHERS.

1. The body of a bird glides through the air very much in the same way as a boat is driven through the water by a man rowing. The bird's wings and tail feathers act like the oars and rudder.

2. The feathers are of two kinds. Some are meant to help the bird in flying, and others to keep his body warm. There is a very great difference between the quill feathers which are placed on the wings and tail, and others which cover the bird's breast, back, and throat.



FEATHER HOOKS.

3. If you look carefully at a feather from the wing or tail of a bird, you will see that the middle shaft or quill sends out a great number of stiff branches to right and left.

4. Each of these branches has little hooks on each side of it. These hooklets grapple each other, and lock the branches into one flat, broad blade. So firmly are these feather-blades knit

together, that you will have to give a hard push with your finger before you can split them apart.

5. They are quite fit for striking the air so as to steer or row the bird through it. But the feathers which are meant for the bird's clothing are not stiff, they are soft and downy.

6. Though each one of them has its tiny quill and its branches on each side, those branches are not hooked together. They are quite loose, so that the least puff of your breath will blow them apart.

7. The breast feathers of a bird have short and loose side shoots, only just long and strong enough to mat them together into a comfortable dress, when they are pressed close to the bird's skin.

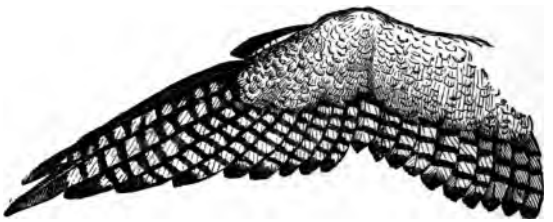
8. Birds change their coats at least once a year. In autumn nearly all birds take off their old suits and find new ones sprouting beneath; and as winter is coming, the new feathers which birds get then are warmer than those which they cast off.

9. Each fresh feather has a little fringe of down round its edge, but as spring comes these fringes break off by degrees. The bird would find them too hot as the sunshine grows strong. The tips of his feathers look clear-cut and sharp again before summer time.

10. Of course, a bird wants something very

light to wear, since he must fly with his coat on his back. What can be lighter than a feather? The whole feathers from a common hen weigh three ounces only, but the entire plumage of an owl, though he looks such a big, fluffy fellow, weighs no more than one ounce and a half.

11. But how does a little bird manage to keep himself dry on a pouring wet day? If he were to get his wings and feathers soaked through, he would not be able to fly. Thousands of small



FLYING FEATHERS AND WARMTH FEATHERS.

birds would die each time that a heavy shower fell, if their plumes became heavy with rain.

12. Birds can easily find shelter. Any broad leaf is a good umbrella for Cock Robin or Jenny Wren, and there are plenty of safe nooks where these little feathered folk can crowd together, keep themselves dry, and chirp about the weather. Yet they must often come out to feed in the rain, or else starve.

13. But they do not become very wet, for each little feather on their bodies is placed so as

to overlap the one below it, like the tiles of a roof. The drops seem to roll off the dry little thatch on a bird's back.

14. These nice feathers not only keep out the cold and rain, but they keep in the warm air from the bird's body. Your clothes keep you warm because they prevent the heat from your body from going away to mix itself with the colder air outside, and the feathers of a bird act in just the same way.

35. THE KITTEN THAT WANTED TO GROW UP.

1. I am a little yellow kit,
   Contented, cunning, plump, and merry,
   Without a care,—oh, wait a bit!
   For now I come to think of it,
   I want to be as old as Jerry;
   Me-ow, I do
   Wish I could be as old as Jerry!

2. And Jerry likes to hunt and fight;
   With head erect and long tail curl'd,
   I see him sitting every night
   Upon the fence, a noble sight;

He is a cat that knows the world!
Me-ow, that's so,
Old Jerry thinks he owns the world.

3. And Jerry has such thick grey fur,
My yellow sides are soft as silk;
You hear him mew! You hear me purr!
The chicken bones for Jerry were,
They gave to me a cup of milk,
Purr-ur, no, sir!
There's nothing nicer than new milk.

4. I try to do my very best,
Although I'm but a little kit;
I wash my snow-white paws and breast,
And then curl up and take a rest.
I never bite nor scratch a bit,
Me-ow, oh no!
Such conduct would be far from fit.

5. When Jerry lifts his heavy paw,
And hits me on my little ear,
By way of teaching me the law,
I never hit him back, because
So very pert it would appear:
Me-ow! oh how
Extremely pert I should appear!

6. So he in his way, I in mine,
Are said to be the best of cats;

His eyes like great green emeralds shine,
My eyes are like brown tourmaline;
We both can jump like acrobats,
Purr-ur, ne'er were
Two livelier, jolly acrobats!

7. They tell me, Jerry,—is it true?—
That you were little once and merry,
That you have been a kitten too,
And I shall be as large as you,
A grown-up cat, like you, old Jerry!
Purr-ur! yes, sir!
I hope I shall be just like Jerry.

E. CAVAZZA. ("The Humane Educator.")

36. THE HEDGEHOG.

1. It is a pity that every farmer does not know what a useful little servant the hedgehog is to him. All day long this little animal usually lies asleep in some warm hole or corner, unless he is disturbed by men, boys, or dogs.

2. But at night he comes stealing softly out. Running about the hedges, fields, and lanes, he begins to be very busy. He wishes to hunt for his supper, for he is very hungry after eating *nothing* all day.

3. His sharp snout is shaped something like that of a pig, so that the little hedgehog may be able to grub and dig with it as the real piggy would like to do, if people would let him.

4. His nose is armed with a stout, strong, gristly tip; its point is almost like a piece of india-rubber. He can push it easily beneath the roots of the plantain, and nibble them away

STEALING OUT AT NIGHT.

from under the leaves. By eating the roots of this weed, he helps to clear the fields of it.

5. But what he likes best are grubs, beetles, snails, and worms. These he is very clever at catching, and as all these creeping creatures come out mostly by night too, you can see what good work the hedgehog is doing for us while we are asleep.

6. He prevents the corn, grass, and turnips

from being spoilt by gnawing insects. He also sometimes catches the mice and rats which steal the grain and roots. Being able to see in the dark, he can prowl about and do this work when men could do nothing.

7. The hedgehog gets rid of small night robbers, in the shape of insects, which come by swarms, to destroy what the farmer and ploughman have taken so much pains to plant.

8. He eats cockchafers and their grubs, which in time would destroy all our trees, if they were allowed to increase.

9. The hedgehog kills snakes as well as worms. We have only one poisonous kind of snake in England. This is the viper. The little hedgehog knows that a bite from the viper would kill him, so he attacks it with great caution.

10. As quick as lightning, he gives the viper a great many bites, all down his back. These are enough to kill the snake; for his backbone is brittle, and he usually dies at once. But in case he may try to give the hedgehog tit for tat, the little hedgepig rolls himself up into a ball, so that the viper cannot get at him.

11. When the hedgehog is seen running about by day, it is because his little ones at home are hungry. Though he is much afraid to ramble out by daylight, he is trying to find something *for them to eat.*

12. Poor timid thing! It would be cowardly indeed to chase him or throw stones at him while he is taking care of his children. He knows that his prickly back may be made the mark at which many a cruel stick or stone will be flung.

13. So though he does so much good for us, he scarcely dares to let himself be seen. Does it not seem a great disgrace to us, that harmless creatures must run and hide when they see us coming? We ought to protect, and never hurt, gentle animals like these.

37. PRICKLY PIGS.

1. When winter comes, the hedgehog goes to sleep in a warm bed, made of dry leaves and grass. He lays up no store as the squirrel does, for he is able to find food as soon as he wakes.

2. Now and then he will take an egg from the nest of some wild bird. But he does not do much harm by this. For he never destroys the nest, as some wicked boys delight to do. And he has a good reason for taking the egg; he is hungry and must have something to eat.

3. The mother hedgehog is very good to her little ones, and when she takes them out for a

stroll by moonlight, she never allows them to stray far from her side. She keeps them near the shelter of some bush, or tall clump of ferns, so that they may be able to hide quickly if danger should come.

4. She is not afraid of meeting men, boys, or dogs by night, but the great fluffy owl, which flies so silently, might mistake one of her little ones for a rat or mouse, pounce down on it, and carry it off to feed his own young owls with. So she has to be careful.

5. When the little hedgehogs are very small, their prickles are quite soft, and they cannot roll themselves up into a ball. But as they grow older, their thorns become stiff, and the strong muscle by which hedgehogs pull their prickly coat over their heads grows stronger.

6. If you stretch out your arm and make it stiff, you can feel with the other hand something hard under the skin, like a cord. These are the muscles, which make your arm strong and able to lift heavy things. And the muscles in your legs make you able to run, stand, and walk.

7. Well, the little hedgehog has a very strong muscle which is spread over the whole of his back; and it is strongest of all round his sides and across his forehead. When anything frightens him, he can pull this muscle together as if it *were the string* of a bag.

8. He begins at his forehead, as if he were frowning, and then the muscle is drawn up tightly all round him. His face, his feet with their claws, and all the soft parts of his body, are tucked safely into the middle; nothing of him is to be seen but a round ball of sharp thorns.

9. They will make your hand bleed if you try

A MOTHER HEDGEHOG.

to handle the hedgehog then; but if you are very gentle with him, and let him see that you do not mean to hurt him, he will soon loosen his muscle, and let the prickles lie flat, so that you can stroke him without hurting yourself.

10. He will peep out at you from the inside of his ball with bright dark eyes, and soon he will put out one little foot after another, and be

glad to trot swiftly and quietly back home. His toes have hard nails, and are meant for digging, and he helps himself to get grubs with them.

11. He is a creature that likes to be free. When he is brought from the fields into a town, he tries hard to get away. He is most unhappy shut up in a kitchen, or yard, or in any cage.

38. THE FARMER'S FRIEND.

1. The owl comes out by twilight, at sunset, and flies about till sunrise. So we do not very often see him. And besides, he likes lonely places, where nobody comes.

2. He is afraid of being shot, so he keeps away from men when he can. That is a pity, for the owl is of as much use to the farmer out-of-doors as the cat is inside the house. Does he not look a little like pussy?

3. His face looks very wise, and is much like that of a cat. And he lives on the same food as a wild cat does. All night long the barn-owl goes hunting for mice and rats; gliding softly along on his broad wings without making any sound.

4. They are fringed at the edges with downy *feathers, so* that when he flaps them they beat

YOUNG OWLS.

the air silently. The small creatures which the owl is looking for have sharp ears. They would soon run away if they heard him coming.

5. But the little mouse or bird knows nothing about it till he is in the grasp of the owl's talons. The small animals killed by the owl have no time to suffer or feel terror. He gives the mouse one sharp stroke with his strong claws and it is dead in a moment.

6. Then, though the owl has taken care to make no noise before, he gives a loud shout of joy. He is glad to have found something to carry home for his little ones, or else to satisfy his own hunger.

7. There is nothing cruel in the ways of an owl. But men are cruel when they set traps to catch mice, rats, or other creatures, where the poor things linger long in fright and pain. It would be much better to let the owls do this work, since mice and rats must be got rid of somehow.

8. If the barn-owl is not disturbed or frightened, he is pleased to build his nest in or near the farmer's yard. And then he saves the corn and other stores in the barn from being eaten up by mice and rats.

9. Besides doing this useful work, he eats beetles and moths, many of which do a great *deal of harm to* crops. But the owl will not

care to live where he is shot at, or teased, or where people meddle with his nest.

10. When the owl has little ones, he will bring them a dead mouse every twelve or fifteen minutes, or sometimes a young rat. This will show you what a number of mice one pair of owls must destroy in one night only.

39. KEEVIE.

1. If farmers could persuade the barn-owl to live near them, and catch rats and mice, it would be a capital thing. But it would be of no use unless the owl were left at liberty. He is of no use when he is shut up in a cage.

2. Unless he is free, an owl is very unhappy; because he cannot catch his food in the proper way, nor have any wife and children, nor fly about as he wants to do. He quickly gets out of health when shut up.

3. Some people once had a tame barn-owl, which lived in their garden. He was called "Keevie," because that name sounded something like his own cry. If you called out "Keevie, Keevie," he would call back again and answer you.

4. In the daytime Keevie used to live under

the branches of an old Scotch fir tree, where he sat winking and blinking as if he were very sleepy. But he was quite awake enough to call out "Keevie" to any one going by whom he knew.

5. If the person answered him, he at once scrambled up to see whether he was to get something nice to eat. But if no notice was taken of him, he stayed where he was and nodded off to sleep again.

6. Keevie would often come into the drawing-room, perched on the shoulder of one of the children. He seemed to enjoy hearing the piano played, and would strum on it himself by dancing up and down the keyboard.

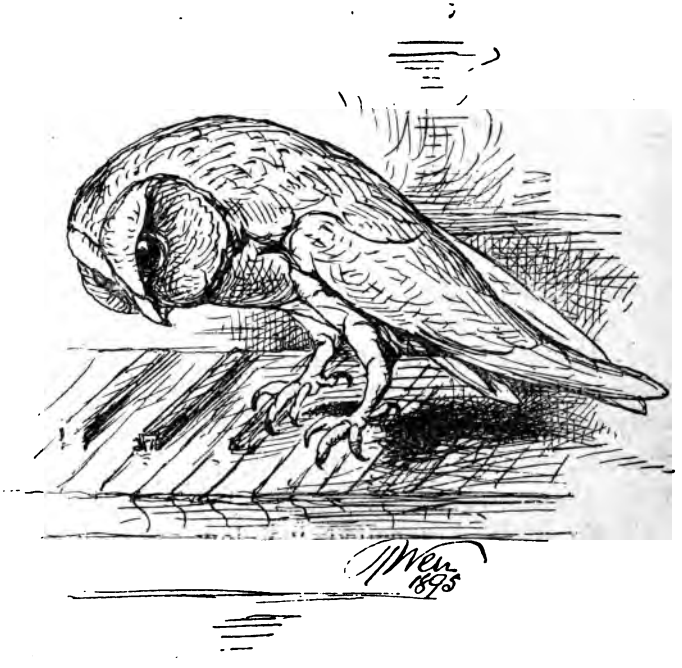
7. This tame owl was left free to go where he liked, and at night he would go hunting where he pleased. After awhile, Keevie began stopping away longer than usual, and did not come back till dusk to receive his supper.

8. By-and-by it was noticed that Keevie did not devour his meals in the kitchen as before; but fled along the passage dragging the meat after him till he reached the garden door. Then he flew with it among some bushes.

9. He was watched, and soon it was seen that he had brought a friend with him. This was another owl, who had not the courage to come *any nearer* to the house. So she waited out-

side, till Keevie brought her a taste of his supper.

10. This went on for some months, till at length one evening poor Keevie was missing. He was nowhere to be found, and the other owl



KEEVIE.

came flitting round his tree crying for him in a most pitiful voice.

11. The lame owl never came back. And soon after the children, who dearly loved him,

saw the skin of their dead pet stuffed in the hut of a woodman, who lived near. How much more pretty and nice Keevie had looked while he was alive!

12. There is no bird which loves her little ones more than the mother owl does. She will fight fiercely with those who come to rob her of them. She will take up her little owl in her claws and carry him away, if she thinks that anyone is coming to steal him.

40. DOGS WHO ALMOST TALKED.

1. It seems as if our friend, the dog, were able to talk without using words. He can not only manage to make his wants known to his master, but he speaks to other dogs, and can make them understand when he is in trouble.

2. A little dog called "Yelow," was once taken on a visit to Paris by his master. One day the small doggie was lost among the new streets, and did not come home that night. Yelow's master was afraid that he might never see his little dog again.

3. But as he was looking out at the window next day, what should he see but Yelow, coming *up the street* with two other dogs! The pair of

strangers were big dogs, and they walked one on each side of him.

4. Yelow's friends trotted gravely up to the front door, one on each side of him; and then, having made sure that it was the right house, and that he was safely at home, they turned quietly round, and went away as they had come.

5. Before turning their backs, the two large dogs seemed to say, "Now, since we can be of no further use to you, we had better say good-bye." And thus they took their leave in the most polite way possible. Would it not be nice to know how Yelow asked the other dogs to show him the way home?

6. Another dog, who lived in a street, often asked in his own way to be let out for a little run. But when he was outside, and was tired of running about, he could not always get into the house again.

7. The bell was too high up for him, or else I dare say that so wise a dog would have found out how to ring it. As he could not do this, he did the next best thing. He went and fetched a little girl whom he knew, and who lived close by, to ring the bell for him.

8. After his little friend had rung the bell, this dog never forgot to thank her, in the best way that he could, by wagging his tail and jumping up to her. One day when he was in the street, he

could not find the little girl, and he wanted very much to go in.

9. So he begged an officer in the army who was there to ring the bell instead. It was some time before he could make him know what he was wanted to do; but at last the bell tinkled, the door opened, and in ran the dog!

10. But by the power which a faithful dog has of making people understand his meaning, he often does very fine things for others. A fire once broke out in a shed close to a thatched cottage. It was in the middle of the night, and the flames spread fast round the little dwelling.

11. The watch-dog, who slept in an out-house, saw the danger. He rushed to the cottage door, and began to bump against it. By howling and scratching wildly at the door, he managed to wake those whom he loved best in the world.

12. A stranger, passing the cottage after the fire had been at last put out, found the children with their arms round the dog's neck, kissing and thanking him as if he had been a human being who had saved their lives, instead of only a poor, humble dog.

41. A DOG WHO COULD THINK.

1. This is a creature which delights in taking care of other animals. And the sheep or cattle

which are placed under the care of the collie dog seem to understand that he is far wiser than they are.

2. In lands where wolves are found, flocks of sheep have been seen to run at once to their guardian dog if a wild beast draws near. Yet the collie himself looks more like a wolf than any other dog.

GUARDING THE FENCE.

3. It is a beautiful sight to see a collie trotting along beside the timid creatures which he is leading from one place to another. How proud and important he is! He has no time to spare for speaking to the other dogs which he meets.

4. In England the collie, or sheep dog, is often sent to drive hundreds of sheep for many miles along a road. He will do this by himself quite as well as if his master watched him all the while.

5. Some time ago, a farmer bought a collie from his neighbour. As soon as the dog understood that he was now to live in a new house, he made up his mind to be as good a servant to his new master as he had been to the old.

6. One night he went out with the farmer round his fields, to see that the cattle were all right. Soon the pair came to a place where the fence had been broken down between two meadows.

7. The cattle belonging to the dog's old master had strayed into the grounds of his new owner, and the whole lot were mixed up and feeding together in one field. But the collie knew the difference between them.

8. In a moment he rushed up, when the farmer pointed to them, and set matters to rights. He sorted out the neighbour's cows from the rest, and drove the strangers into their own meadow. The farmer then mended the fence as well as he could, and went home to supper with his dog.

9. The next day, the man thought that he would like to visit this field again, and see that all was well. So he whistled for the dog. But the collie was nowhere to be found, so the master started without him.

10. When he reached the place where the cattle *had broken* through the fence the day before, he

found that they had done so again. And there was the collie. He had thought about the cattle in the night, and had run off early next morning to look after them.

11. He had again found them mixed up, and had parted them, driving each lot into its right field. Now he was sitting in the gap between the meadows, saying to any cow who tried to pass through the open place, "Come if you dare!"

12. These clever dogs are able to count as well as a very little child. A collie can bring three, four, or five sheep from the flock to his master. But he cannot learn to count big numbers.

13. But he knows how to divide sheep from lambs when they are all feeding together or crowded into a yard, which no child, no, nor a man, could do. He can tell young cattle from old, and will quickly place the younger creatures in a drove by themselves.

14. If bidden to do so, he will collect sheep into small batches, and will prevent them from joining into one party again. He never bites the sheep, though he pretends to do so if they will not obey him.

42. THE DROVER.

1. Useful as the collie dog is to all shepherds in all places, it is on wide English downs or on the wild hills of Scotland that his full worth is seen. In places of this sort, sheep could not be kept at all without the dog.

2. A man who was a Scotch shepherd all his long life, once said that the whole mountain country of Scotland would not be worth sixpence without the sheep dog. A single shepherd with his dog can do more with sheep than twenty shepherds could do without dogs.

3. One day a farmer sold a flock of sheep to a drover, who spent his time in going from place to place. The sheep were to be driven for a distance of thirty miles, and the farmer lent his favourite collie dog to help to take them there.

4. He told the drover that the dog was quite able to manage the flock alone, if he himself walked in front to show the way. As soon as they reached the journey's end, the dog was to have a good meal and be told to run home.

5. The next day the dog started with the sheep, his master telling him what he was to do, and the drover went first. Two or three days *passed, and* yet the dog did not come back,

WAITING FOR ORDERS.

though there had been plenty of time. His master began to feel troubled about this.

6. But one morning, to his great surprise, he

found the dog before his door with a large flock of sheep. Among these were all that he had sold to the drover. Greatly puzzled at this, the farmer asked about the affair.

7. At last he found out that the drover had been so much charmed with his dog on the journey, that he had made up his mind to steal him. So he shut the poor doggie up to keep him until he should leave that part of the country.

8. The dog, of course, was most unhappy, and he watched each chance of making his escape. At last he managed to slip out. But before running home he went to the field, collected all the drover's sheep as well as those of his master that he might take them with him.

9. No doubt the wise dog thought that the drover had no more right to keep the sheep than he had to shut him up. And he made up his mind to rescue the poor meek things who had not wits enough to look after themselves.

10. The collie dog is among the most faithful and devoted of dogs when really well treated. But he feels pain, neglect, and rough words more keenly than other dogs do. Unkindness sometimes makes him sullen, and so he has now and then been called ill-tempered.

11. A shepherd who once sold his faithful collie because it was old, found that the dog *refused to* work for his new master. But he

would never again go near the man who had cast him off, nor would he come into his house. The collie was broken-hearted at being treated thus, when he was growing helpless and weak. He was useless and wretched from the hour that his master forsook him.

43. CHAINED IN THE YARD.

1. 'Twas only a dog in a kennel,
   And little the noise he made,
   But it seemed to me as I heard it,
   I knew what that old dog said.

2. "Another long month to get over!
   Will nobody loosen my chain,
   Just for a run round the meadow,
   Then fasten me up again?

3. "What 's left in my trough is all stagnant,
   Matted with tufts of hair;
   My kennel is littered and filthy,
   I'd rather my kennel was bare!

4. "Bones! why I heartily loathe them!
   Nothing but bones and meat,
   Till I hate my existence, and envy
   The dogs that starve in the street!

5. "Give me my old life of freedom,
Give me a plunge and a swim,
A dash and a dive in the river,
A shake and a splash on the brim!"

6. I patted his head and spoke kindly,
I thought that his case was hard;
Oh! give him a run in the open,
Your dog chained up in the yard.

ANON. ("Humane Educator.")

44. THE CAT TRIBE.

1. Our little house cat belongs to the same tribe as the big lion, tiger, and leopard. Though she is small, tame, and gentle, she has the same form and habits, and we can see from many of her ways that she belongs to this family.

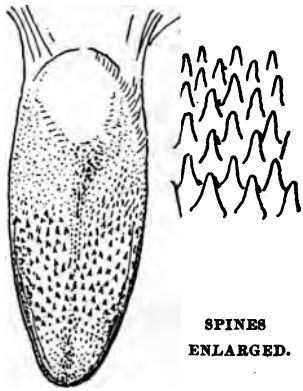
2. Animals of the cat tribe are almost always on the move, day and night, when in a wild state. They snatch a short nap from time to time when they need rest. They either creep, walk, or get over the ground by great leaps and bounds.

3. But they do not often run. Unless she is cruelly chased, or very much frightened, pussy does not often run far. She will do so if she *is forced, but not* of her own free will. It is

because her limbs and backbone are very flexible; that is, they bend with great ease.

4. Now every good runner knows that he must keep his spine stiff, or he is not likely to win the race. Cats do not run because they cannot make their spines stiff. It is the nature of all cats, big or little, to pounce on their prey, not to chase it. And they hide in times of danger rather than take flight.

5. Their sight is very keen, but they see best by twilight. Also, they hear very quickly; but no creature of the cat tribe can taste so well as the dog can. The nerve in a lion's tongue, by which he is able to taste his food, is no larger than that which is to be found in a middle-sized dog.



SPINES ENLARGED.

CAT'S TONGUE.

6. The tongue of a cat acts as a sort of extra tooth, it is covered with sharp, horny points. These points are bent backwards towards the throat, and are used for tearing the flesh from the bones of their prey, or even for rasping the bones themselves.

7. These prickles on the tongue also serve as a brush and comb to pussy. This may easily

be seen by watching her when she is washing and dressing herself. Her whiskers, too, are of great use to pussy.

8. Each of the stiff bristles, which tapers to a fine point, springs from a small bulb rooted in the tender skin near her lips. If the tip of one of these hairs be touched, no matter how lightly, she feels it in an instant.

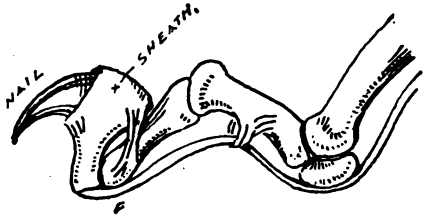
9. In the house cat, as well as in the lion, tiger, or leopard, the whiskers stretch out on each side beyond the breadth of the head. These hairs help their wearer to feel his way as a blind man does with his stick, and to tell at once whether a hole in front of him is wide enough for him to pass through.

45. PAWS AND EYES.

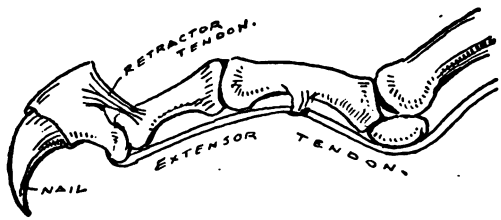
1. Lions and tigers, and all creatures of the cat tribe, must hunt for their prey by night. It is one of their duties to keep in check the races of animals which feed on grass, or on other vegetable foods.

2. If there were no beasts of prey in wild places, the deer, antelopes, and other browsing creatures would become so plentiful as to destroy every green thing. In our own houses we know that mice and rats would soon leave us nothing *to eat if there* were no cats.

3. Puss has to find her supper in the dark when she is prowling after mice, and she has a pair of wonderful eyes which help her to see it. As her food is a living animal, which is able to hear her coming and run away, she needs to tread quietly.



AT REST.



EXTENDED

4. So she has velvet paws on which to steal along without making the least sound. Lastly, she needs a weapon with which to seize and kill her mouse. Her sharp, strong claws are as good as a bow and arrows to her.

5. Take one of pussy's soft feet into your hand, and you will see how beautifully it is planned for her use and comfort. You will

notice that no claws are to be seen unless she wishes to show them.

6. If her claws were always stretched out, so that she trod on them, the points would soon be blunt, like the nails of a dog, and would be quite unfit for the purposes for which she needs them.

7. In order to guard a cat's claws from being worn away they can be drawn into a sheath which lies at the tip of each toe-joint. Two stiff elastic bands, called the *retractor tendons*, hold the nail or claw back when the paw is at rest or when puss is standing on it.

8. But when the cat wishes to strike a blow with her paw, and stretches it out for that purpose, another cord or tendon, called the *extensor tendon*, which runs along beneath the toe and is fastened to the root of the nail, becomes tightened.

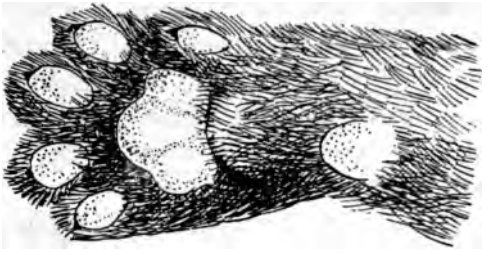
9. As this tendon becomes tight it pulls the claw forward from its sheath, but when pussy wishes to draw her claws in again she can do so by letting the lower tendon become slack.

10. The pads at the bottom of her foot make her footstep soundless, and when she makes a bound or leap she can come down on these cushions without giving herself any shock. But how does she contrive to see in the dark?

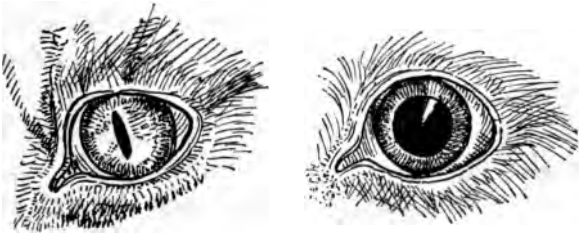
11. It is a mistake to fancy that cats, or any *animals, can* see without any light at all. In a

place which was perfectly dark the cat would be quite as blind as you or I. Yet places which seem quite dark to us are not so to her.

12. This is because her eyes are able to col-



lect the rays of light better than ours can. In a strong light the pupil looks no larger than a pin's head, but if we go into a darkened room the pupil becomes very large. It spreads out in order to collect as much light as possible.



13. Now, the pupil of a cat's eye is so much larger than ours that it is able to collect much more light, so that out of doors at night, where it is never what we call "pitch dark," puss is able to see her way without any trouble.

46. THE WILD CAT.

1. Now and then we hear that a wild cat has been found in an English wood, though this creature is now very rare in Great Britain. Long ago, when the island in which we live was covered with trees, there were many of these fierce wild cats living in them.

2. But no one is very likely to meet with a wild cat in England now, unless it is a cat which was once tame, but has taken to living in the woods, and has grown shy and wild again.

3. In other parts of the world wild cats of several kinds are found in plenty, besides lions and tigers, which are only a large kind of cat. And it is thought that our house cat has sprung from a race of wild cats which is still to be found in Egypt and the lands near it.

4. When we look at puss lying asleep by the fireside, and when we think of her gentle, loving ways, we can hardly believe that she was ever related to any savage wild beast running loose in the forest.

5. And yet, long ago, there were no tame cats, nothing but these wild sorts. So it is plain that the wild ones must have been the parents *of those which* live in our houses now. Our

pussy, as she comes from a hot land, cannot bear cold or wet.

A WILD TOM.

6. The wild cat is a wonderful climber. She lives almost always in high trees, catching birds. Or she prowls, mostly by night, in search of

mice, rats, hares, rabbits, and any other animals which she can kill for herself and her young.

7. She is very careful of her kittens, and often rears them in the empty nest of some big bird, which she has first driven away. Or she will use an old hollow tree, a crack of a rock, or some other snug corner to make their bed in.

8. The wild cat's kittens are fierce like herself, and will raise their backs and spit or hiss at any one who comes near them, even before they are able to see or run.

9. The tiger itself is hardly so fierce as its small cousin, the wild cat. When it is full grown, nothing will tame the fury of a wild cat at being caught, so those who first kept cats as pets must have taken the little kittens.

10. These young wild cats must have learnt by degrees to become fond of men, women, and children, and to leave off their angry and sullen ways. The English wild cat is about two feet nine inches long, and its ears are more pointed than those of the house cat. They are fringed at the tips like a feather.

11. Its tail, too, is unlike that of our tame cats, for it is not pointed at the tip, but is of the same size all the way to the end. The wild cat of Egypt has a pointed tail, and this makes people suppose that it is the kind from which *our race of tabbies* sprang.

47. A CAT AND A MOUSE.

1. Wild cats do not chase their prey. They wait until it is near, then spring upon it, and kill it at once with a single blow of the fore paw. The tame cat in our houses has the same habit of watching places where she is likely to find her prey.

2. How patiently she will sit for hours near a mousehole without stirring! She catches birds, too, when she can. Puss is far more proud of catching a bird than she is of catching a mouse. She thinks that she has done a far more difficult thing, and ought to get more praise.

3. A cat belonging to a lady would always take her mouse, when she caught one, to the cook in the kitchen. But when she caught a bird, she always carried it into the drawing-room to her mistress.

4. The lady was not pleased to have the poor dead bird laid at her feet, but she had not the heart to scold pussy, who purred and looked up into her face.

5. The cat could not have understood why she was to catch mice but not birds. She was trying to say to her mistress, "Look, I have brought you a present; a fine thing which tried

to fly away from me, but I was clever enough to get it for you."

6. It is of no use and it is not fair to blame pussy for doing these things. She does not know that she gives pain to mice and birds when she catches them, any more than a tiny baby knows when it is hurting a kitty by squeezing it tightly in its little hands.

7. She does not kill her mouse at one blow, but she gives it several pats, and seems to like seeing it move, just as a baby likes to hear a kitten cry. She has no more sense in some ways than a baby, and does not understand that she is giving pain.

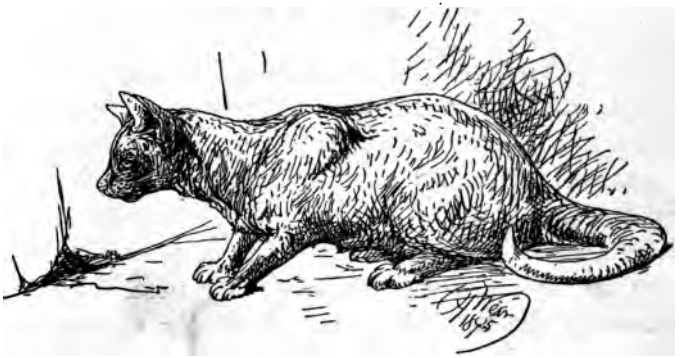
8. The better we treat pussy, the less like a wild beast she will become. And she will drive away the mice from a house, which does as well as killing them. The mice smell the cat as well as the cat smells the mice. The mice will not venture to live in a house where pussy chases them.

9. A true but strange story is told of a friendship between a cat and a mouse. One evening a family were sitting round the fire, when they saw a mouse run from the cupboard. It went up to the cat, which was lying on the hearthrug, and placed itself beside her, as a kitten does when it is going to suck.

10. The cat had lately had kittens, and all but

one had been taken from her. Those who looked on felt greatly surprised, and were afraid to move for fear of making the mouse run away. They wanted to see what it was doing. After a time the mouse ran back to the cupboard.

11. These visits of the mouse to the cat went on night after night. The cat seemed to expect the mouse, and if it did not come, she made a



WATCHING THE HOLE.

little crooning noise as if calling it. And then her small grey friend ran to her.

12. Poor puss missed her babies, and it seemed as if sorrow had softened her towards the little mouse. She gave the little timid creature some of her milk, though she was a good mouser and never allowed any other mice to live if she could help it.

13. The end of this poor mouse was sad, like

that of most pets. He mistook another cat for his own pussy, or else he thought that all cats were going to turn over a new leaf and be kind to mice. At any rate, he ran up to a strange cat who at once killed him.

48. THE WASP.

1. In early spring a large wasp is often to be seen, flying in a sleepy way near the ground. This is the female wasp, or queen, who has been taking a long nap in some snug hole through the winter.

2. Now that the first warm day has come, she begins to see about building her nest. Very cleverly she sets about it. First she chooses a dry, sunny bank. In this, if she can, she finds a hole ready made, which some mouse or other creature has lived in and left empty.

3. If she cannot, she digs one with her jaws and legs. What a great deal she has to do! She must have a narrow passage of a few inches long, and at the end of it a small cave. As soon as this is nearly ready, the wasp flies off to the nearest post or paling where the wood is soft and fit for her purpose.

4. Here she sits and scrapes away the fibres

of the wood with her strong jaws, till she has made quite a little heap of fine shavings. These she mixes with some glue from her mouth, and rolls the paste thus made up into a ball.

5. If she thinks that it is not firm enough, she mixes some fine roots with her paste. Then she carries the ball to her hole, and rolls it out into a thin sheet of grey paper. She makes little cells

A PAPER-MAKER.

with her paper as a bee does with its wax.

6. The cells of a wasp are of the same shape as those of a honeycomb. And the wasp places them under a neat roof of stout paper, shaped like an umbrella. The open part of the cells is turned downwards.

7. When this is done, the wasp lays an egg in each cell, sticking it with glue to the side, so that it cannot fall out. And then she goes on

making new cells below the others, under a second roof. She lays more eggs in these.

8. In a few days the young grubs break from the eggs in the first cells. And as they cannot move from their little rooms or feed themselves, the mother must take care of them. She cannot have much time to spend on her own meals.

9. The mother wasp must now hunt far and wide for food to fill the little hungry mouths. And she is then of great use to the fruit trees and other plants. For she carries away blight, flies, grubs, and many tiny insects which do much harm in gardens.

10. At first she gives her little ones no food until it has first been made moist in her own mouth; but soon they learn to eat harder things. Then she will bring them small bits of drier food. She is obliged to make their cradles larger as her young ones grow.

11. If she finds a grub which is too large for her to carry all at once, the wasp snips it into two or three bits. She never forgets where she has left the other pieces, even if they are a long way off from the nest. She flies straight back to the right place to fetch them.

12. For the wasp is a very shrewd insect, and knows her way well to and from her nest. In a *short* time the grubs inside the cells weave little

silken doors across the open end of their little dwellings. They go to rest for a time, and during their sleep are changed into winged wasps.

13. Then they burst through the webs which they wove, and as soon as they can fly, begin to help their mother at her work. They feed the other little brothers and sisters just born, and help to build more cells.

49. AN INSECT EATER.

1. By the end of summer there is quite a big wasp town under the ground, in the place where one single lonely wasp began to build her city. And though many thousands of wasps are always passing in and out of the small hole, they never jostle each other or fight.

2. They all spend their time in bringing food for the young grubs still in the nest. Some of them sweep the place clean, and if a wasp dies inside they take out his body and place it at a distance. If it is too big to carry whole, they bite it into bits, and take the pieces away.

3. When a wasp comes to pay us a visit, it is mean and cruel to crush the beautiful creature, with its rainbow wings and slender shape. She

has only ventured in to get a tiny bit from your dinner for the little ones at home.

4. It is foolish, too, to kill wasps, for they are among our most useful friends. When wasps are scarce, which happens if cold weather kills them, flies and grubs increase so greatly as to become a plague.

5. In the year 1811 hardly a wasp was to be seen; and the blight and flies swarmed in such a way as to become a real danger and nuisance. In turnip fields wasps often save the crops from ruin by clearing the plants from insects.

6. Though the wasp likes ripe fruit now and then, he likes insects better. And he always feeds the young on them. A lady once proved this. In her greenhouse were two peach trees, side by side. One of them was covered with fine peaches.

7. But the other bore no fruit, because it was sickly, and a mass of green blight. Which tree do you think the wasps chose? They had young ones to feed—the young could not eat fruit, so they picked out the tree with the blight.

8. Not a single wasp took a nibble out of the peaches till the other tree was cleared from blight. And then, as soon as that was done, the lady had her peaches tied up in muslin bags. So the wasps could not touch them.

9. *Some* people make a silly fuss about the

danger of being stung by a wasp. They fancy that each wasp which comes near them is thinking of nothing but stinging somebody! But the wasp is far too busy for any such thing.

10. Those who are afraid of wasps should keep quiet, and then they are not likely to be stung. The wasp's sting was given to

THE WASP.

him for killing his prey—large flies or spiders. And he stings when he is frightened, also.

11. When people begin to dance about and flap their pocket-handkerchiefs at him, he gets frightened, and is more likely to sting. He is harmless and timid enough, and will soon learn to be *tame*.

12. He knows those who feed him and treat him well, and do not chase him about. The first hard frost, or even cold wind, kills almost every wasp.

13. Only a few are kept alive through the winter to become the parents of new broods the next year. So it is a pity to waste time and trouble in getting rid of wasps. Wise people will be glad to welcome them to their gardens and fields.

50. THE FINCH FAMILY.

1. Besides making the fields and hedges pleasant by their sweet song or bright twitter, the little finches are doing useful work. With their sharp beaks and keen eyes they seek insects and the seeds of weeds to feed their young and themselves.

2. Perhaps you have never thought when you were running about out of doors how many different sorts of wild plants there are? Try one day, when you have nothing else to do, to find out how many kinds you can collect, even in one lane or field, in half an hour.

3. You will be quite surprised to find how *many sorts* grow in one small place. These

green plants help to keep the air pure, and they give food for creatures like sheep, cows, pigs,

THE BUSY LITTLE CHAFFINCH.

and horses. Without vegetables we ourselves could not get on at all.

4. *And* how many sorts are grown in gardens?

Well, for each growing plant there are at least six different sorts of insects which feed on it. This will give you some idea of the number of insects which live in the world.

5. If you look carefully, you will often find the leaves of weeds or garden plants nibbled at the edges. If you are patient and look still more carefully, you may find the small grub which has been doing the mischief.

6. Yet you will not always be able to do this, because many of these insects are almost too small for human eyes to see; and they have cunning tricks by which they hide from us. But the eyes of a bird can find them out.

7. Its sharp beak picks the insect or its eggs off, and makes a meal of them. In spring time you may see the chaffinch doing this good work in the orchard or garden in which she has built her neat nest.

8. When she has hungry little ones to be fed, she clears the apple-tree of insects, and she collects blights from the rose-bushes for them. She is most careful to give her young ones nothing but insects to eat, for she thinks them the best dinner they can have.

9. The busy little mother chaffinch feeds her babies thirty-six times in an hour. So you can see that she is a useful little thing to have *near our houses*. After feeding her little ones,

she will take her own supper from the seeds of weeds like groundsel, chickweed, and plantain.

10. This is useful too, for we do not want the seeds of these weeds to sow themselves in our plots of ground. The full-grown chaffinch eats insects also, besides the seeds of weeds, all the year round.

11. But as this bird does not know the difference between one sort of seed and another, the gardener sometimes finds him digging in a newly-sown radish or turnip bed. Then the man is very angry, and says that all chaffinches ought to be shot.

12. He forgets the great good which they do for many months of the year, and thinks only of the small mischief which he sees them doing for one or two days. That does not seem at all wise, does it?

13. When the chaffinches are all killed, who will keep away blight from the roses, and maggots from the apples? The gardener would show more sense if he scared away the chaffinches for a time, but did not shoot them.

51. GOLDIE AND THE THISTLES.

1. Have you ever noticed the downy, floating, white seeds which comes from the thistle when

it has done flowering? A puff of wind carries away the soft woolly tuft, which seems to sail along like a little balloon. It drops down a long way, and soon becomes a young thistle.

2. There is no weed more troublesome to farmers than the thistle. If it spreads into a cornfield, it will crowd out the young wheat and smother half of it. And the way in which the winged seeds go flying far and wide, makes it difficult to stop their growth when once they have began to spread abroad.

3. Every thistle-head sends out so great a number of seeds, that if the plants were allowed to grow without being disturbed, they would soon cover the whole land. Besides eating thistle seeds, the goldfinch destroys dandelions, groundsel, and many other weeds in the same way.

4. The mother goldfinch builds a beautiful nest for her little ones, and she feeds them on seeds which she has first softened in her own crop. As soon as the young goldfinches are fledged, they fly in large flocks to commons and waste places where thistles grow.

5. The farmer ought to be thankful to see them snipping the seed from its woolly crown, and preventing these tiresome weeds from covering his fields. And the birdcatcher ought *not to be allowed* to come, as he does, and take

the poor little goldfinches away by dozens from their useful work.

THISTLE DOWN.

6. Sometimes kind people, who are fond o birds, have hung up empty cages near thei

houses, putting plenty of food inside, and leaving the cage doors open. And they have found that birds come to live in the cages, and to fly in and out as they like.

7. This is a far better plan than shutting them up in hot rooms where they cannot feed as they like, nor take long flights, nor find proper places for their nests. A goldfinch once found an empty cage hung up in this way, just inside a front door.

8. She flitted over it with her gold and black wings, and then went in to get a nice feast of seeds. After a few days she came back with her mate, and they both went in to feed in the cage. After this the pair of goldfinches were not seen again for eight weeks, when they returned with their four little ones!

9. In winter, birds are thankful for food and shelter. A clergyman living in the country near Birmingham, has part of his house wall covered with cages each year. In these, food is always ready for the finches which are found near his home.

10. They find snug lodgings in the cages in snowy weather, and in spring build their nests inside them. He finds that the birds do good and not harm to his garden, and he is pleased to see them so near him, yet free to wander where they like.

52. CATCHING THE COLT.

1. With forehead star, and silver tail,
And three white feet to match,
The gay half-broken sorrel colt,
Which one of us could catch?

2. "I can," said Dick, "I'm good for that;"
He slowly shook his empty hat,
"She'll think 'tis full of corn," said he,
"Stand back, and she will come to me."
Her head the shy proud creature raised,
As 'mid the daisy flowers she grazed;

3. Then down the hill across the brook,
Delaying oft, her way she took;
Then changed her pace, and, mowing quick,
She hurried on and came to Dick.
"Ha, ha!" he cried, "I've caught you, Beck!"
And put the halter round her neck.

4. But soon there came another day,
And, eager for a ride,
"I'll go and catch the colt again,
I can," said Dick, with pride.

5. So up the stony pasture lane,
And up the hill he trudged again;
And when he saw the colt, as slow,
He shook his old hat to and fro.

6. "She'll think 'tis full of corn," he thought,
"And I shall have her quickly caught."
"Back, back!" he called; and at the sound,
The restless beauty looked around,
Then made a quick impatient turn,
And galloped off among the fern.

7. And when beneath a tree she stopped,
And leisurely some clover cropped,
Dick followed after, but in vain;
His hand was just upon her mane,
And, panting, he pressed on behind.
Down through the brake, the brook across,

8. O'er bushes, thistles, mounds of moss,
Round and round the place they passed,
Till, breathless, Dick, sank down at last.
Threw by, provoked, his empty hat,—
"The colt," he said, "remembers that!
There's always trouble from deceit,
I'll never try again to cheat!"

MARION DOUGLAS. ("Humane Educator.")

53. A LARGE FAMILY.

1. Did you ever watch a little wren in a bush? It creeps among the branches more like a mouse than a bird. Jenny Wren is not an idle little birdie, though; she is a very busy, fussy, careful mother.

2. You may know her mate from other wee brown birds by the funny way in which he cocks his tail, and by his habit of hiding in a bush or hedge when he is afraid, instead of flying away like other birds.

3. When this little bird is hunting for insects, he pries and searches into all the holes and corners he can find with great care. In a garden he will soon clear the rose trees from blight.

4. The wrens hardly ever have less than six little ones in their nest at a time, and often as many as sixteen! The nest is not open at the top. There is one small round hole left at the side for a door.

5. By this the little father and mother go in and out to feed their young ones. They must have plenty to do in finding enough insects to fill all those little hungry mouths. The little wrens try hard to hide their nest.

6. This they do by making it match the place

where it is built, so that no sharp eyes of boys will notice it. If they choose a mossy bank to build on, they make the nest of moss.

7. If it is built under the root of a tree, they use some of the twigs which are lying about, so that the nest looks like a bundle of little sticks, or a part of the tree.

8. If they build in a haystack, the wrens weave their little house out of hay; and if it is made among dry leaves, the small parents take care to mix some of these up with the sides of their nest.

9. A man once watched two wrens making their nest. The mother bird began at seven o'clock in the morning by bringing one leaf in her beak and fitting it into the forked branch of a juniper bush.

10. Her husband did no work the first day, but he sat and sang to her from morning to night, which I dare say she liked very much. The little wren brought bundles of leaves in her mouth every two or three minutes, picking up the first that came.

11. But when she had to think about it, and choose the things with greater care, she was away more than ten minutes at a time finding them. She worked so hard that by seven o'clock that same evening all the outside part *was finished.*

12. Next day her mate helped her. This was because the finer moss and feathers, which were to be the lining of the nest, were less easy to

FATHER WREN.

find. The pretty nest was quite done, and was a firm, neat, cosy ball, ready for the eggs at the end of nine days.

54. JENNY WREN.

1. Jenny Wren is a brave little bird. And she will often make her nest among the vine leaves or rose trees trained over a garden wall. Sometimes she chooses the thatch of a cottage roof or cowshed.

2. A gentleman was one day visiting some people who lived in a pretty cottage. And the children showed him a wren's nest which was built in a low hedge close to the door.

3. As he was very fond of birds, and could not bear to think that they should be troubled, their nests torn down, and themselves driven away, he said that he would give the boys and girls a reward if they would promise to leave the nest alone.

4. They all said that they would not touch it, nor even go near enough to disturb the mother bird as she was sitting. The children had often gone quite close to peep at her, before that time, but they said that they would not do so any more.

5. Next time that the gentleman came to the cottage, he went to take a look at the nest. But he found that the hole by which the wrens went in and out, had been stopped up.

6. Calling the children, he said, "You all

gave me your promise not to touch the wren's nest. But you must have forgotten, or broken your word. Some one has meddled with the

JENNY.

nest, and the hole has been carefully closed up with moss and leaves. How is this?"

7. The children all declared that not one of them had laid a finger on the nest. They had

not even gone near it. On hearing this, the gentleman went back again and looked more thoroughly at the nest, all round.

8. What do you think that he found out? Why, that it was the little wren herself who had stopped up the hole. She thought that too many pair of bright eyes had been peeping in at her front door. She was afraid that some harm would happen to her eggs.

9. So she had shut up her front door, and made herself a back door instead, on the other side of the nest. The faithful little thing would not forsake her eggs, though she felt that there was danger. So she had thought of this plan to make her treasures safer.

10. Who could be so unkind and hard-hearted as to steal from a poor little bird that which is her very own, and all she has in the world? Nobody who reads this story of the mother wren would ever do such a thing, I hope.

11. Jenny Wren does not come to the window like Robin Redbreast, to pick up crumbs. She does not like them. She cannot eat any other food but living insects. But the wren seems fond of our company for all that.

12. As you walk down a shady lane, or through a garden where shrubs grow thickly, this cheerful little birdie will often come and flit, *like a big* brown moth, close to your feet.

13. If you are careful not to frighten little Jenny, she will creep closer and closer, even peeping up into your face with her bright eye, as if to see what sort of mood you are in, and whether she dare keep near you.

55. A TOAD'S NEW CLOTHES.

1. The toad and frog are a little alike. They are both born from eggs laid in the water by their mothers, and both begin life as little swimming creatures called tadpoles.

2. But the young toad when he is a tadpole is sprinkled all over with very fine spots, which look like gold-dust, while the frog tadpole is dark.

3. After spending a few weeks in a ditch or pond, living first on water weeds and dead leaves, and then on water insects and grubs smaller than himself, the little toad creeps out from his home in the pool.

4. While he lived in the water he had no legs, but was very much like a little fish. He breathed through two branches, like feathers, which were called gills, and which grew on each side of his head. He had a big head and a long tail, but no limbs to walk with.

5. He alters very much before he is ready to come out on to the ground, for then he has four legs. His gills are gone, and he draws air in through his throat.

6. He is now a tiny toad, no bigger than the tip of a child's finger, with bright eyes like jewels, and a clear yellow skin with handsome dark marks on it. He is going to begin a new life on dry land.

7. When once he has left the water, the toad chooses dry and hot places, except once a year, in the spring, when the eggs must be laid. The toad knows that her young ones must be born in a pond, though she herself likes to live in a different kind of place.

8. Frogs can never bear to live far from water. Their skins soon become dry, and they must die unless they can keep themselves moist and cool. But Mr. Toad carries under his skin a great many small warts or sacs full of liquid.

9. This juice or liquid keeps him cool and in comfort, no matter how dusty the corner in which he may make his home. When the poor toad is very frightened, he swells himself out and tries to squeeze or squirt out this juice, which has a burning taste, at those who try to hurt him.

10. He has no way but this in which to defend himself. No dog or other animal will take a *toad into its* mouth, for this liquid burns or

makes the skin feel rough. But the toad has no poison, and he can neither bite nor scratch.

11. He has no claws, and his teeth are not of the biting sort. His only way of taking care of himself is by squeezing out a few drops of this liquid, for he cannot even run away fast enough to save his life.

12. His body is rather heavy, and he cannot hop lightly as the frog does. If we do not like to have the juice of the toad on our hands, we had better not touch him.

13. When the skin of the toad grows too tight for him it cracks down the middle of his back, and beneath it a new one is to be seen, bright, fresh, and clean. The toad has some trouble in getting out of his old skin.

14. First he pulls his two hind legs out. Then, with his mouth, he loosens the fore legs, one after the other. When his coat and trowsers come off, the toad thinks his old clothes too good to be thrown away. So he rolls them up into a ball, and swallows them.

56. THE FRIENDLY TOAD.

1. There is no small, wild animal, more useful than a toad. He eats slugs, earwigs, grubs,

and many insects which would do much harm to plants if none of them were ever killed.

2. He does not leap at his prey as the frog does, but creeps quietly towards it, and then darts out his tongue to seize it, so fast that you can hardly see how he does it. This tongue is so long that it would surprise you to see how far it can reach.

3. It is joined to the front part of his mouth, and he is obliged to keep it doubled up inside. He is a very friendly creature, in his slow, calm way, and soon becomes tame if kindly used.

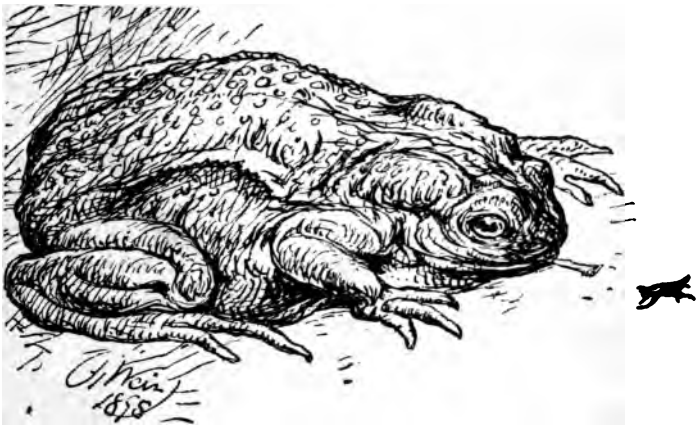
4. A toad once lived for thirty-six years under the doorstep of a French farmhouse. The step was this creature's hunting ground, where, with little trouble, he could catch many insects which ran or crawled across.

5. The people near were fond of coming to pay this queer fellow a visit, and the toad, hunting for his supper, was one of the favourite sights shown to strangers. Not one person there would have thought of such a thing as throwing a stone at him or making him afraid.

6. It was easy to see that the toad could judge how far off any insect was, and that he could measure the distance with his eye. He never darted out his tongue till the beetle or grub had reached the proper length from his mouth. The *toad never* missed his aim.

7. In shooting out his long weapon he was as clever as a man who shoots an arrow at a target. When he drew the tongue back again, the insect never got away, because the tip of the toad's tongue was sticky and held it fast.

8. This toad was so grateful for the kindness shown to him, and for being allowed to live in peace under the step, that he would allow him-



HE DARTS OUT HIS TONGUE.

self to be taken gently up into the hands of his friends.

9. He never tried to soil their hands with his juice, for he was not afraid. But he did not like to sit long on their palms unless a cool green leaf was placed there. The hot, dry feeling of the hand hurt him, and he would try to hop off unless the leaf was there.

10. Another toad once lived in a garden, and would come every day to the window of a room at the dinner hour, to be fed. As toads will eat nothing unless they see it moving, and think that it is alive, for their duty is to catch insects, the children had to find some for him.

11. But the hour for dinner was changed from four o'clock to two. The toad could not be told this, of course, and so he missed his petting and dinner on the first day that the hour was made earlier. But he was not going without his share twice!

12. On the second day he came at the new time, and was as punctual as the rest inside the window. No one could tell how he found out about the change in the time, or how he knew that the dinner was to be two hours earlier in future.

57. THE EARTHWORM.

1. Few people guess, when they see a humble little earthworm crawling across their path, how useful a servant he is to men. Without worms it would be difficult for human beings and animals to live on the earth at all.

2. For it is by the help of these lowly creeping creatures that grass and crops grow as food.

Long before men had found out the use of the plough, earthworms, with their long, slender bodies, used to break up the hard clods of ground.

3. The small burrows or holes which worms

THE EARTHWORM.

made let air into the soil and drained away the rain from the roots of plants, thus making the earth light and wholesome. Besides breaking up the ground, worms can turn poor soil into rich mould.

4. This they do by swallowing earth and dead leaves. After passing through the body of the worm this stuff is cast up in little heaps. The rain washes these little heaps flat, or the wind sweeps over them and scatters them abroad.

5. In this way fields which were once unfit for corn or grass became ready for the farmer's use. It has been found that in some parts of England no less than ten tons of dry earth pass through the bodies of worms on every acre of land in each year.

6. The work of the useful worms is never done, for the earth needs sifting and preparing over and over again to keep it from growing heavy and hard, unfit for the delicate roots of seedlings. Very rich black mould is made by worms when they eat dead leaves and cast them up afterwards.

7. No gardener can prepare fine mould for plants so well as the worm, and no ploughman can so carefully fit his field to receive grain. And the worm can work in wet weather when the ploughman cannot. In places where it is very dry, worms cannot live, and then the soil is always poor and barren.

8. The depth of earth which worms make by their castings in each acre of land every year is often as much as two inches, but it is not easy to *find out how* much is done by a single worm.

It is thought that a full-grown worm might cast up twenty ounces of earth in twelve months.

9. It is easy for people to prove that worms spread good earth on the top of bad. One learned man, who was in the habit of watching worms, used to lay chalk or ashes in his fields, and then notice how long worms took to cover them up.

10. He had a path in his garden made of large flag-stones. Worms came up between the cracks and began casting up little heaps of mould. At first the gardener used to sweep these away, but after a time he left off doing so.

11. As soon as the worms were left to themselves, they covered the stone path with a layer of good soil. Very soon the path had disappeared; grass and daisies grew over the stones. It took the worms about thirty years to place one inch of soil over the flags.

12. In this way worms have buried many curious old buildings, adding inch after inch of soil for perhaps a thousand years or more, till the houses could no longer be seen. We must not fancy the worm to be a mean or useless creature when we read of the great wonders which it is able to do.

make the mother understand what was wanted. The sensible parent seized her young one with her trunk, and held him firmly down.

11. Though he was groaning with agony she did not let him go till the surgeon had dressed the wound, and she did this every day till he was quite well. Dogs, cats, monkeys, and other animals are grateful to those who try to cure their sickness or heal their hurts, even though this may give them pain.

12. Putting an animal to the most painless death we can in order to cut short a life of misery is not cruel, but kind. For we put it to a little pain in order to save it from much more afterwards.

13. But when animals are hunted to death for sport, shut up in cages, caught in steel traps, killed unmercifully, or otherwise tortured for man's pleasure .or profit, they are cruelly used. We have no right to treat them in any of these ways, and we do great harm to ourselves if we are cruel.

14. Shakespeare says that mercy is twice blessed: it does good to the person who shows it as well as to the person or animal to whom it it shown. Cruelty, in the same way, is doubly harmful. It hurts the creature to whom it is shown, but it harms the man, woman, boy, or *girl who shows* it even more.

59. WHAT IS KINDNESS?

1. It would be sad to think that anyone who reads this should not know what kindness is! There are not many boys and girls who have never had anyone to be kind to them. But in almost any town I am afraid there are poor sad people upon whose lives the light of kindness never shines.

2. The aged, the sick, and the poor are to be found everywhere, and each of us should try to brighten their lives if we can. But there are others who need love and kindness, too, though they cannot ask for it in words. Wherever we go we shall never look long before finding some dumb creature in distress.

3. They can only look at you with sad eyes, and cry in a language of their own. Let us try to understand it, and not turn our back on any poor thing in trouble, whether it be human or not. A kind word is as much to an animal as it is to one of us, perhaps more. And a kind word costs nothing.

4. Do you know that every kind word not only makes an animal or person to whom you speak it happier and better, but yourself too? Animals feel pain and grief as we do, and for the

same reasons. They are very helpless when they are taken by man to work for him.

5. We prevent them from getting their own living in the fields, as wild creatures do, when we turn them into domestic animals. Men ought to take care of those animals which they use as their servants, and supply their wants. It is just and right to do this, for if animals work they ought to be repaid.

6. But some people wish to be very kind to animals, and yet do cruel things because they do not quite know how to treat them. Nobody can treat any animal really well unless he knows something about its habits and its nature.

7. We ought never to keep a creature unless we know how it must be fed, and are able to give it all that it needs. It is as cruel to feed an animal on the wrong food as not to feed it at all. And it injures them to be overfed as much as if they were underfed.

8. We must learn all these things before we can keep animals well. Then there are other people who fancy themselves to be very fond of animals because they keep them as pets. But the shutting up of free creatures in prison is not kindness.

9. Those who catch wild birds, squirrels, dormice, hedgehogs, and other animals to keep *them captive* for life are thinking only of their *own selfish pleasure*. They are fond of them—

selves, but not truly fond of animals at all. True fondness for a creature would prevent us from wishing to see it in prison.

10. Such people are either ignorant or selfish, or both. Either they do not know how much all creatures love liberty, or they do not care. It is impossible to be kind unless we are unselfish, and that is a difficult thing to learn.

11. We are all so fond of doing what we like! Yet, if we wish to be really good, brave, and noble, we must never put anything weaker than ourselves to pain or sorrow for our amusement, or to gain money, or for any other reason.

12. The best creatures that we can find to keep as pets are cats and dogs, for they are more happy with us than without us, and they may be left free. Kindness is the best chain, and these dumb friends need no other.

60. THE UNEXPECTED DOCTOR.

1. Upon his bed of pain the sick boy lay
Forlorn and sad,
Too much alone, he spent the weary day
A pining lad.

2. The house was hot, the street door open stood
For cooler air,

And, unperceived, a sleek cat creeping in
Went up the stair.

3. Joy flushed John's pallid face with crimson bloom,
His eyes grew bright;
"Oh come, dear Puss, upon my bed," he cried,
"And stay all night!"

4. Puss shared his supper, stopped with him all night
And through the day;
His mother, kind and wise, gave willing leave
For Puss to stay.

5. Puss brought her kitten, merrily they played
In Johnny's sight;
His head was easier soon, his cheek less pale,
His eye more bright.

6. And quickly now the sick boy better grew,
Till mother said,
"Dear doctor, to your med'cine much we owe,
John's out of bed!"

7. The doctor smiled a kindly smile and said—
"It was not that;
The best physician that your boy called in
Was Doctor Cat!"

MRS. SUCKLING. ("Humane Educator.")

WORDS FOR SPELLING.

1.

Tar'-ta-ry
A-mer'-i-ca
mus-tang'
en'-e-mies
ja-guar'
scour'-ing
las'-so
muz'-zle
nos'-trils
rea'-son
do-mes'-tic
ter'-ri-fied
car'-ri-age

2.

shy'-ing
nec'-ess-ary
stom'-ach
whis'-per-ing
tooth'-ache
scar'-ed

3.

will'-ing
friend'-less
af-fec'-tion-ate
com'-rade
pin'-ed
ac'-ci-dent
ex-cept'
train'-ed
chief'-tain
sub-due'
do'-cile
puz'-zled

4.

pig'-my
shrewd
pad'-dock
peep'-ed
watch'-ed
sur-pris'-ed
wheel'-bar-row
bear'-ing-rein
cru'-el-ty
shoul'-ders
wrong

5.

Pro-fess'-or
horse'-tam-ing
Bar-thol'-o-mew
an'-swer
or'-din-ary
be-lieve'
crea'-ture
pleas'-ant
ar'-gue
scuf'-fling
op'-po-site
schol'-ars
man'-a-ged
touch'-ing
cheer'-ful-ly

6.

wov'-en
fetch'-ing
build'-ing
rook'-e-ry
pos'-si-ble
quar'-rell-ing
forc'-ed
kind-heart'-ed
pains'-tak-ing
popp'-ing

7.

pick'-axe
fore'-head
leath'er-y
wire'-worm
cock'-chaf-er
ser'-vice
al-low'-ed
doz'-ens
ter'-ri-ble
plague
mis'-er-a-ble
po-ta'-toes

8.

sen'-ti-nel
op'-po-site
sen'-si-ble
an'-swer
beaks
wound'-ed
touch'-ed
af-fec'-tion-ate

9.

mar'-row
sub'-stance
sponge
breathe
emp'-ty
health'-y
breast'-bone
os'-trich
cor-re-sponds'
sin'-ew
slip'-pery
perch'-es

10.

de-serves'
course
trea'-sure
stea'-dy
rough
cher'-ish

11.

blight
scar'-let
la'-dy-bird
quan'-ti-ty
crowd'-ing

whit'-ish
croc'-o-diles
gob'-bling
swal'-low-ed
gau'-zy
be-neath'
chil'-ly
win'-dow-pane

12.

Bright'-on
mil'-li-ons
rat'-tled
pat'-tern
fa'-vour-ite

13.

faith'-ful
roam'-ed
do-mes'-tic
bi'-son
do'-cile
Eng'-land
scat'-ter-ed
ap-proach'
sen'-si-ble

14.

veg'-e-ta-ble
dis-turb'-ed
gi-raffes'
pas'-tures
bur'-i-ed
mon'-i-plies
soft'-en-ed

15.

buf'-fa-los
fierce
brist'-ling
climb'-ed
Ze'-bu
plough
eigh'-teen

16.

Chil'-ling-ham
North-um'-ber-land
muz'-zle
school'-boy
draw'-ing
ac-cus'-tom-ed
Switz'-er-land
scold'-ed

17.

pain'-ful-ly
A-ra'-bi-an
Per'-sia
trav'-el-ler
gal'-lop-ed
Thi-bet'
fa'-mous
spir'-it-ed

18.

des'-ert
Ire'-land
scorch'-ing
float'-ing
cush'-i-on
bur'-i-es
broil'-ing
browse
car'-ry-ing

19.

Lap'-land
rein'-deer
leath'-er
knife'-han-dles
un-der-neath'
Houns'-low
tread'-ing
es-cape'
ant'-lers

20.

wing'-ed
sea'-gull
breeze
float'-ing
froz'-en
sea'-weed
scram'-ble

21.

Corn'-wall
bas'-in
shoal
pil'-chards
cow'-ard-ly
steal'-ing

22.

beaks
wood'-pecker
o-blig'-ed
prick'-les
sieve
strain'-er
mor'-sels
waist'-coats
fir'-cones
pel'-i-can

23.

claws
night'-jar
seize
al-low'-ed
a-fraid'
lei'-sure

24.

ear'-ly
hymn
pale'-leav-ed
grey'-hair-ed
min'-is-ter
fash'-i-on
dig'-ni-fied
schol'-ar-ly
list'-en-ers

25.

cir'-cles
daz'-zle
gauze
veil
touch'-ing
wait'-ing

26.

shrewd
pent'-house
hay'-mak-ers
ut'-ter-ing

27.

con-tin'-u-ed
un-mer'-ci-ful
au'-tumn
fa'-vour-ite
grass'-hop-per
seiz'-ed
tal'-ons.

28.
swal'-low
Oc-to'-ber
hatch'-ed
plas'-ters
pil'-ed
shap'-ed

29.
rail'-ing
chim'-ney
anx'-i-ous
jour'-ney
pack'-thread
plain'-tive

30.
el'-der-bush
fright'-en-ed
quiv'-er-ing

31.
red'-breast
choos'-ing
creep'-ers
sea'-son
cur'-tain
spoil'-ing
whis'-tle

32.
cous'-in
peer'-ing
wea'-ther
pleas'-ant
chirp'-ing

33.
phea'-sant
scream
re-sist'-ance
eas'-i-ly

34.
fea'-ther-blades
knit
de-grees'
en'-tire
um-brel'-la
thatch

35.
e-rect'
chick'-en
ex-treme'-ly
tour'-ma-line
ac'-ro-bats

36.
hedge'-hogs
u'-su-al-ly
dis-turb'-ed
plan'-tain
in-crease'
pois'-on-ous
scarce'-ly

37.
squir-rel
mus'-cles
fright'-ens
frown'-ing
kitch'-en

38.
glid'-ing
tal'-ons
fright'-en-ed

39.
per'-suade
scramb'-led
pi'-a-no
re-ceive'

40.
Par'-is
qui'-et-ly
tink'-led
dwell'-ing
scratch'-ing

41.
col'-lie
wolves
guar'-di-an
neigh'-bour
whis'-tled
mea'-dows
batch'-es

42.
shep'-herds
puz'-zled
res'-cue

43.
chain'-ed
no'-bo-dy
stag'-nant
lit'-ter-ed
heart'-i-ly
loathe
ex-ist'-ence

44.
cru'-el-ly
leop'-ard
chas'-ed
flex'-i-ble
twi'-light
whisk'-ers
touch'-ed

45.
an-te'-lopes
ex-tend'-ed
weap'-on
e-las'-tic
re-tract'-or
ten'-dons
sound'-less
trou'-ble

46.
Brit'-ain
E'-gypt
de-grees'
fring'-ed

47.
mouse'-hole
praise
squeez'-ing
friend'-ship
hearth'-rug

48
pal'-ing
fi'-bres
hon'-ey-comb
cra'-dles

49.
rain'-bow
ven'-tur-ed
nui'-sance
mus'-lin
sting'-ing

50.
veg'-e-ta-bles
ground'-sel
chick'-weed
plan'-tain
mis'-chief
scar'-ed

51.
this'-tles
float'-ing
wool'-ly
dan'-de-lions
snip'-ping
tire'-some
cler'-gy-man
Bir'-ming-ham

52.
catch'-ing
fore'-head
graz'-ed
hur'-ri-ed
trudg'-ed
im-pa'-ti-ent
lei'-sure-ly
pro-vok'-ed

53.
search'-es
weave
ju'-ni-per

54.
thatch
cow'-shed
tho-rough'-ly

55.
swim'-ming
tad'-poles
bit'-ing
trow'-sers

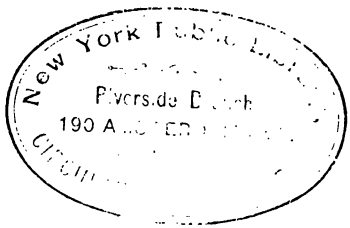
56.
friend'-ly
tongue
seize
crawl'-ed
tar'-get
punc'-tual

57.
earth'-worm
crawl'-ing
bur'-rows
del'-i-cate
plough'-man
dai'-sies
build'-ings

58.
cru'-el-ty
dent'-ist
pa'-ti-ent-ly
el'-e-phant
Cey-lon'
sur'-ge-on
sen'-si-ble
groan'-ing
ag'-o-ny
un-mer'-ci-ful-ly

59.
an'-i-mals
do-mes'-tic
in'-jures
a-muse'-ment

60.
for'-lorn
un-per-ceiv'-ed
crim'-son
sup'-per
doc'-tor
phy-si'-cian



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